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The ILLINOIS Medical Journal

VOL. 93 NO. 1

January, 1948

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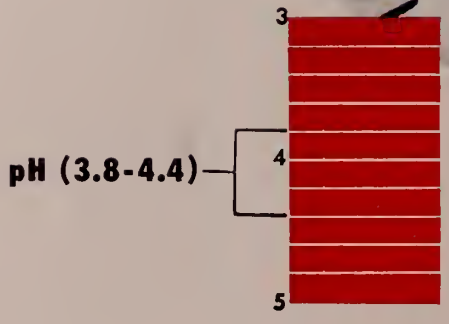
Pulmonary Complications Due To Endobronchial Foreign Bodies

Meningococcic Infections

(See page 29 for complete Table of Contents)

OFFICIAL JOURNAL OF THE ILLINOIS STATE MEDICAL SOCIETY





the natural defense in vaginal leukorrhea

In a recent report* it is shown that the specific pathogens of vaginal infections require definite pH ranges for their continued existence. Moreover, a shift in pH beyond these ranges provides an unfavorable environment for these various pathogenic organisms.

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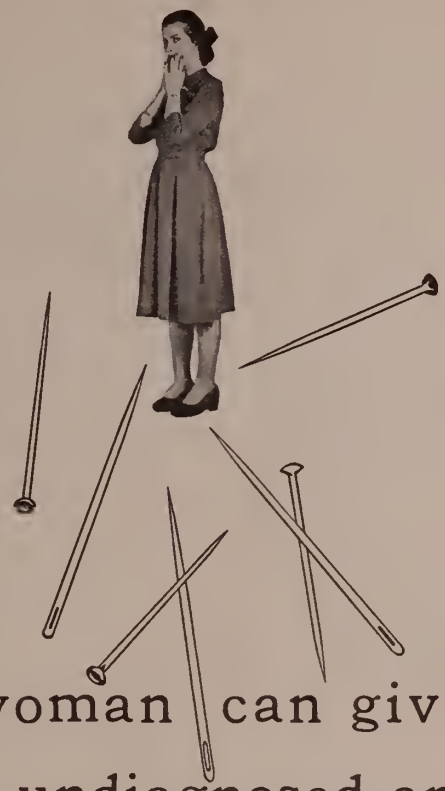
*Boehme, E. J.: Trichamanas Vaginalis Vaginitis; Diagnasis, Treatment, Causes of Failure in Treatment, S. Clin. North America 25:545 (June) 1945.

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Entered as Second-Class Matter July 21, 1919, at the Post Office, Oak Park, Illinois, under the Act of March 8, 1879. Acceptance for mailing at special rate of postage provided for in section 1102, Act of October 8, 1917, authorized July 15, 1918. Office of Publications, 715 Lake Street, Oak Park, Ill.



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ESKAPHEN B ELIXIR provides—in delightfully palatable liquid form—both the calming action of phenobarbital and the tone-restoring effect of thiamine.

For the nervous patient with poor appetite

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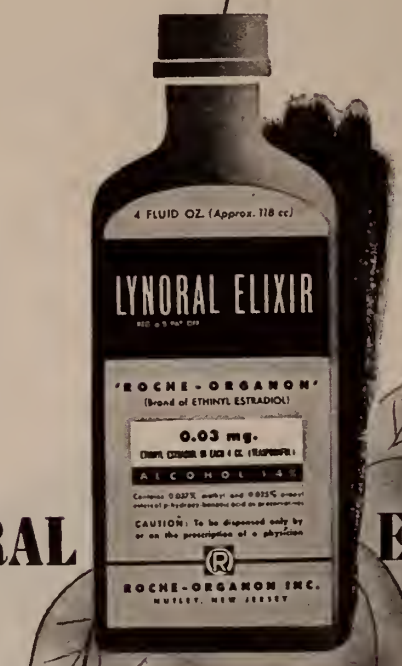
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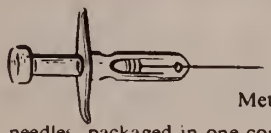
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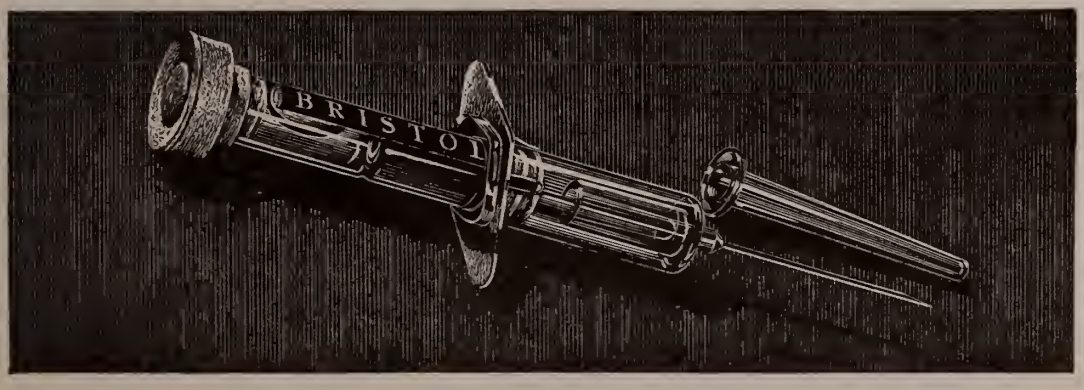
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*Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154
Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60
Proc. Soc. Exp. Biol. and Med., 1934, 32, 241
N. Y. State Journ. Med., Vol. 35, 6-1-35, No. 11, 590-592.

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1. Lehr, D.: Proc. Soc. Exper. Biol. & Med. 64:393, 1947.

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Fig. 2 — Tablet in duodenum. Liver bile plus increased alkalinity hastens emulsification of lipids of coating.





Fig. 3 — Complete disintegration.

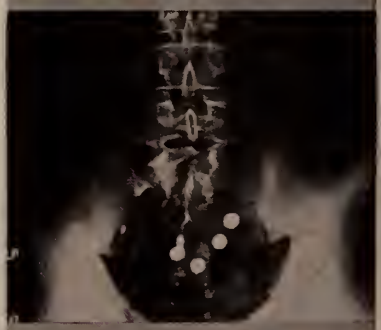
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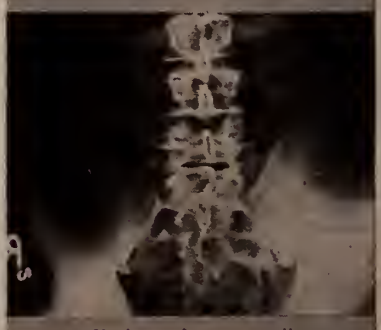
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Radiograph token five minutes after intake of 6 tablets Enteric Coated B-M . . . all tablets are in stomach.



Four hours later . . . all tablets now in intestines.

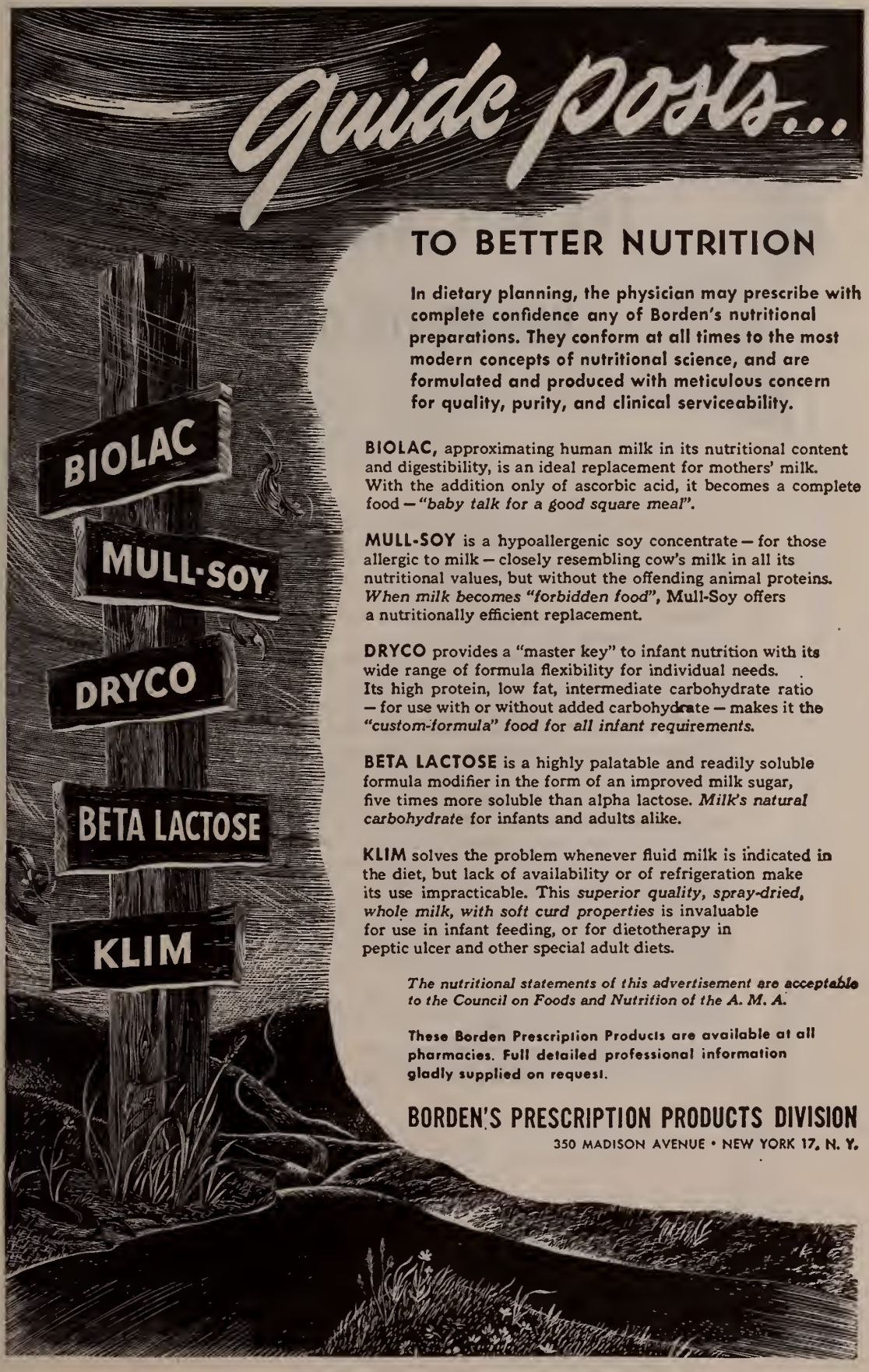


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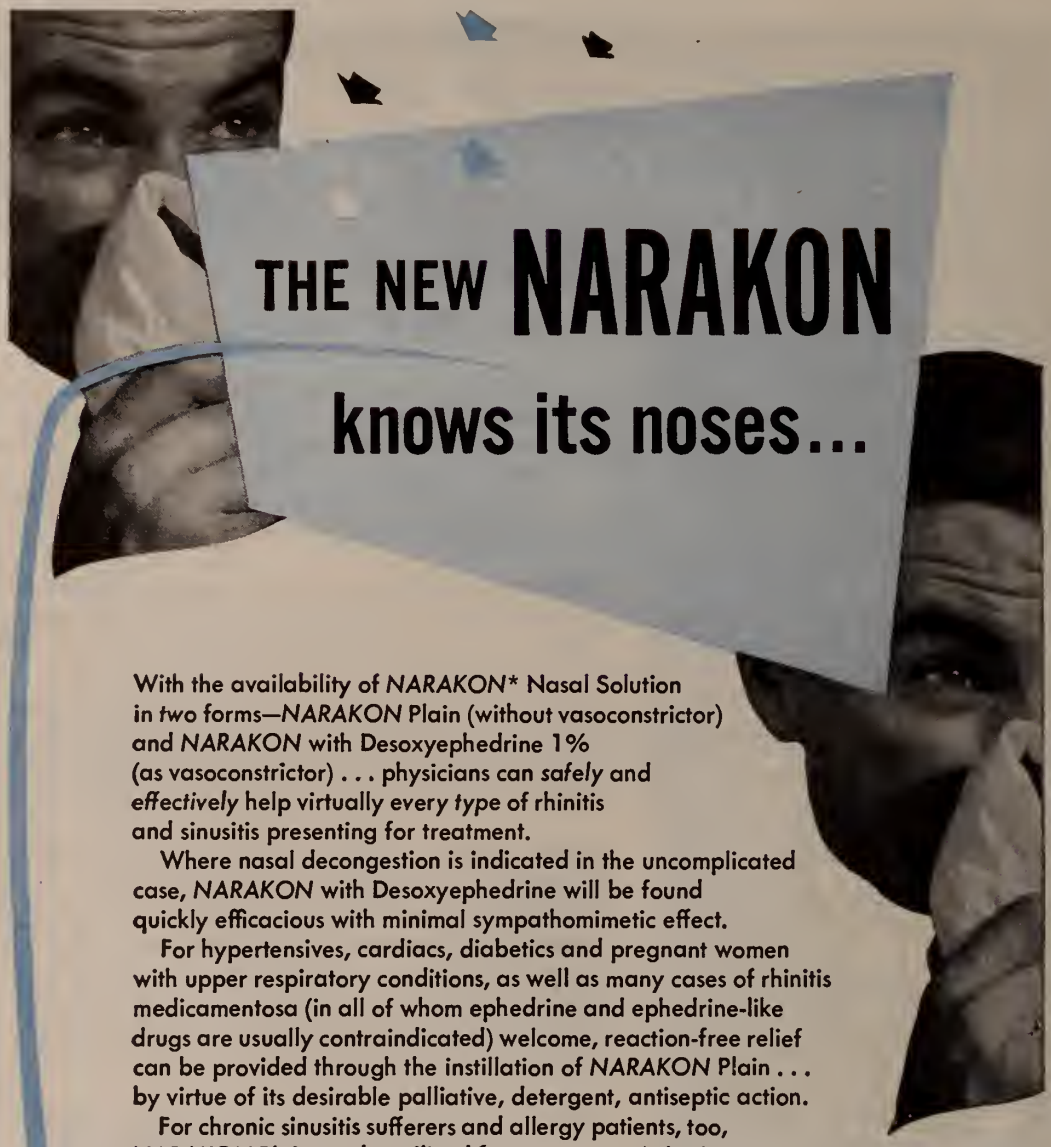
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(as calcium pantothenate)
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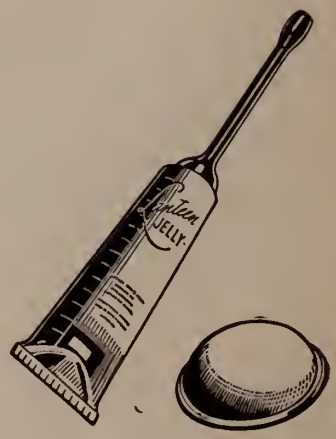


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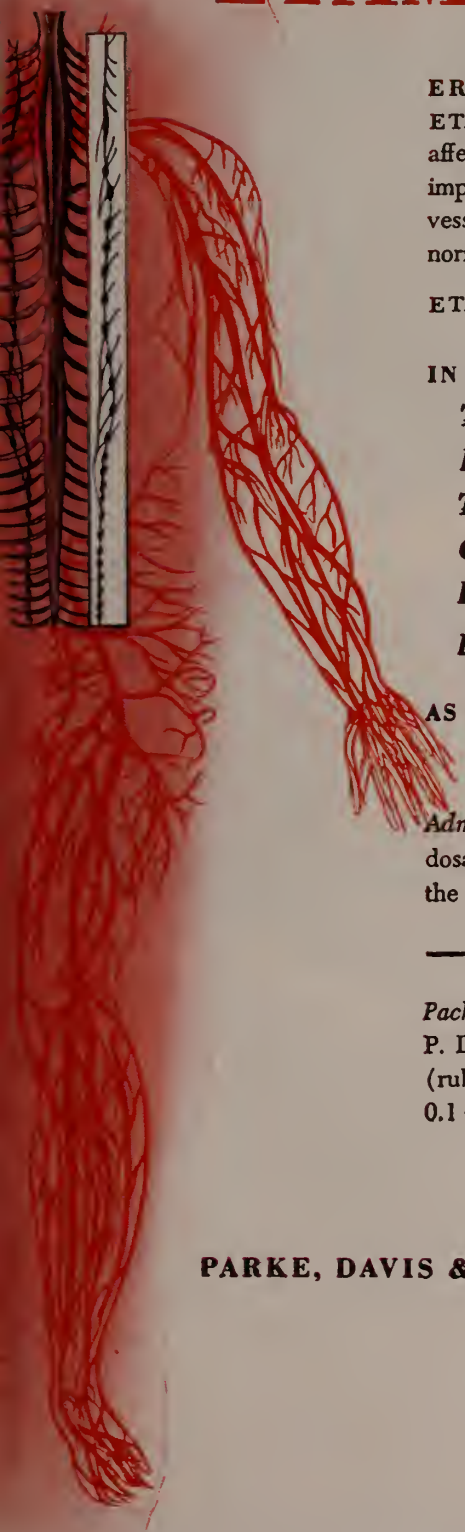


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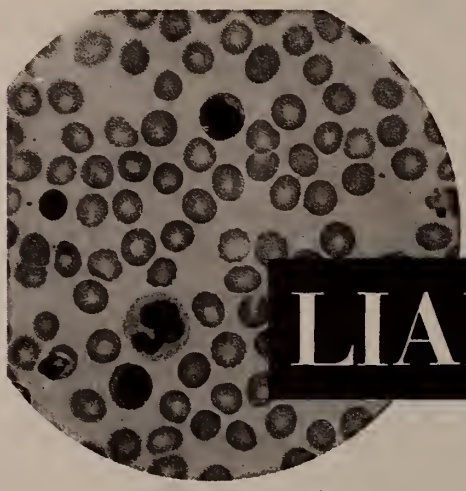


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1. Scherer, J. H.: Virginia M. Monthly, 72:289, July, 1945.
2. Travell, J. et al.: Conferences on Therapy, New York State J. Med., 47:387, Feb. 15, 1947.

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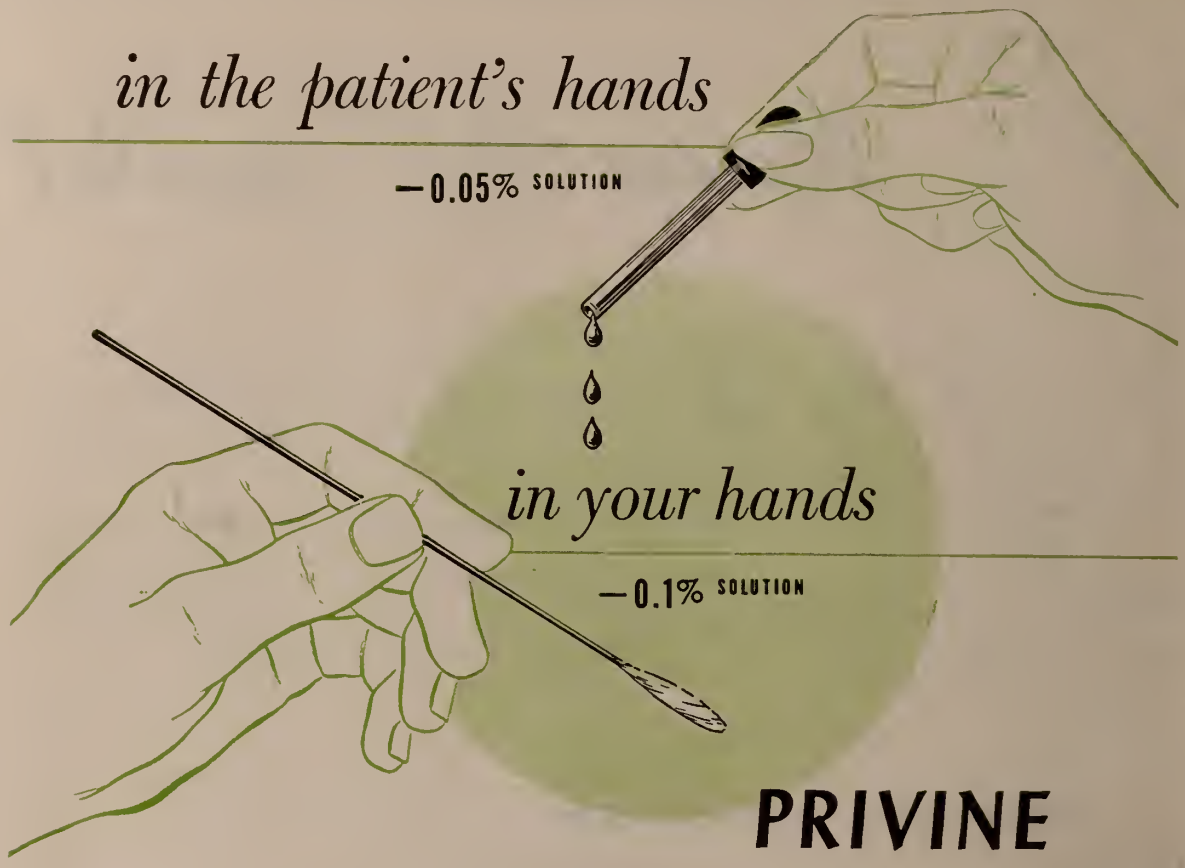
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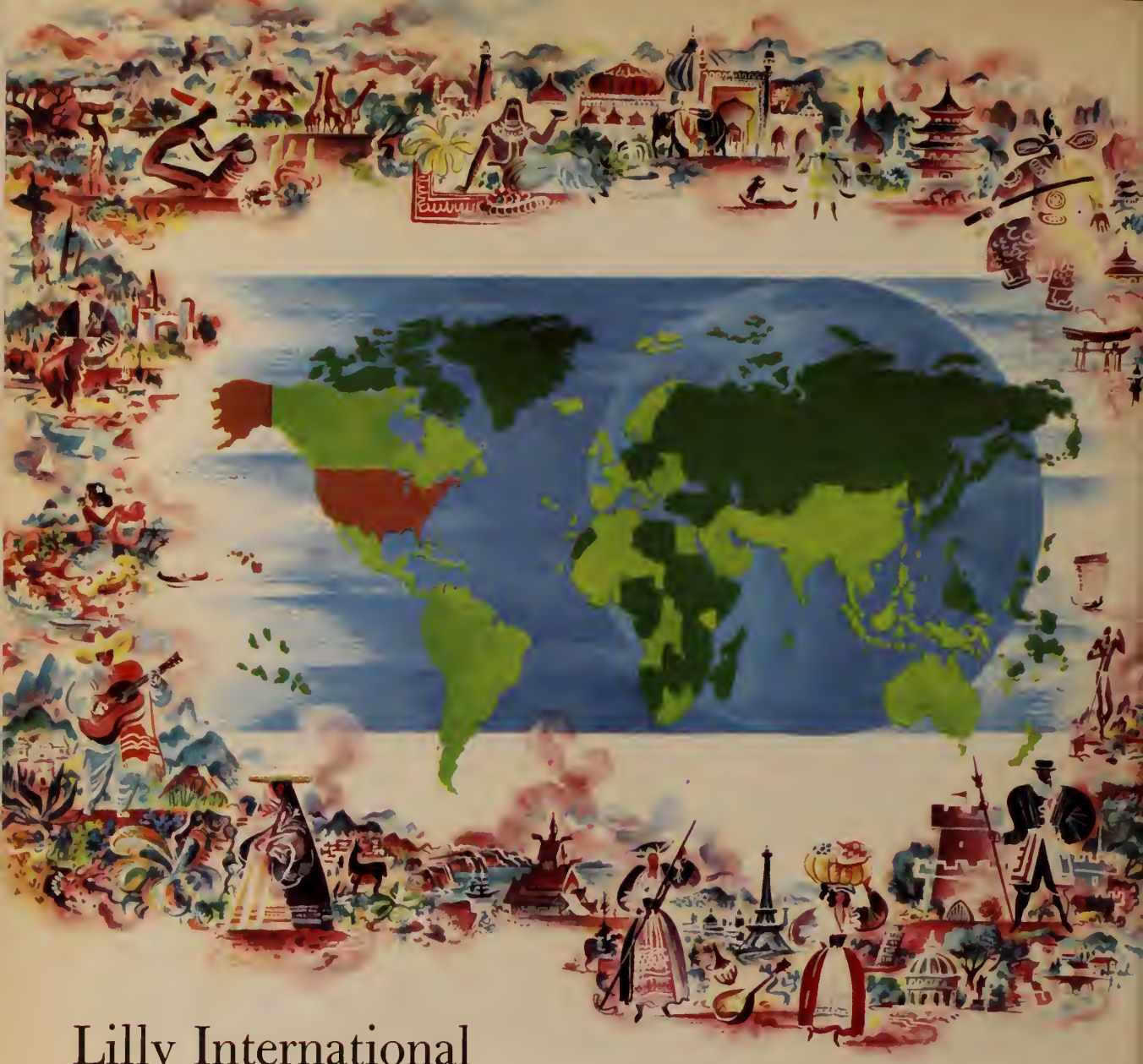
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The Illinois Medical Journal

January, 1948

VOL. 93, NO. 1

Official Journal of the Illinois State Medical Society

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Editorials

EDITORIAL BOARD PRESENTS AWARDS FOR OUTSTANDING JOURNAL ARTICLES

At a joint meeting of the Editorial Board and the Journal Committee of the Illinois State Medical Society, winning authors were selected in the first annual scientific and literary competition for the best articles published during the fiscal year in the Illinois Medical Journal.

Henry C. Sweaney and Warren H. Cole of Chicago, and John R. Porter of Rockford were judged winners.

Awards are offered in two fields: $100 for the best paper from a literary standpoint, and $200 for the most outstanding piece of original work as presented in an original paper or scientific editorial. The awards were authorized by the Council June 9, 1946, for fiscal year, beginning with the July, 1946 issue.

Dr. Porter was declared the winner of the $100 award in the first group — best written article from the literary standpoint — for his work on "The Positive Serological Reaction Is Not a Diagnosis of Syphilis." It appeared in the February, 1947, issue of the Illinois Medical Journal. His paper also was considered as a contestant in the second group and was listed as an outstanding contribution in the scientific as well as the literary field. Professor Irving J. Lee of the Department of Speech of Northwestern University, assisted in the judging of the literary award.

In the second group, the vote of the committee ended in a tie between Dr. Sweaney for his article in the November, 1946, issue: "New Application of Laboratory Methods in Diagnosis of Tuberculosis," and Dr. Cole for his article on "Carcinoma of the Colon," which appeared in the May, 1947, issue.

The Council, by a special vote taken by mail through the secretary's office, voted to issue duplicate awards of $200 each to Dr. Cole and Dr. Sweaney.

Special mention was also voted for Russell D. Herrold of Chicago for his October, 1946, article on "Indications for Antibiotics in Urinary Tract Infections," and to George Shambaugh, Jr., of Chicago, for his November, 1946, report, "Preliminary Results with a New Fenestration Technique."

These awards are the first in the Society's annual competitions for the best written and most outstanding scientific articles appearing in the Illinois Medical Journal. All material published by members of the Illinois State Medical Society during the year ending June, 1947, were eligible for the awards.

In judging the best articles for the scientific award, the four highest candidates — Herrold, Sweaney, Cole, and Snambaugh — were listed for further consideration with committee members polled on a basis of four points for first, three for second, two for third, and one for fourth. This ballot resulted in a tie between Sweaney and Cole. The tie was put to another vote and

this ended in four votes for Sweaney and four for Cole.

The committee then recommended that duplicate prizes be given to Sweaney and Cole and that the secretary request Council approval of this recommendation by mail.

In future years, winning articles will be selected on a point system devised by Dr. Harry M. Hedge of Chicago, chairman of the Journal Committee, and adopted at the joint meeting of the Editorial Board and the Journal Committee.

This system awards points to an article according to: (1) what it contribute scientifically; (2) how easy it is read; (3) construction and grammar; and (4) with what authority the author writes (bibliography, research, etc.)

The awards are limited to members of the Illinois State Medical Society for original articles on scientific editorials published in the Illinois Medical Journal during the fiscal years — July to June.

JOINT STUDENT LOAN FUND SET UP BY SOCIETY AND I. A. A.

The Council of the Illinois State Medical Society at its meeting in the Palmer House, Chicago, December 7, adopted a resolution moved by the Committee on Rural Medical Care authorizing participation with the Illinois Agricultural Association in sponsoring a $100,000 Medical Student Loan Fund for financing medical education for rural youths.

The plan, designed to increase the supply of physicians in rural areas by bringing medical training within the financial reach of farm boys, was devised by the Committee on Rural Medical Care of the Society, headed by Harlan English, M. D., of Danville, and a committee of the Illinois Agricultural Association.

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Original articles and membership correspondence to Dr. Harold M. Camp, Monmouth, Ill.

Society proceedings and news items and changes in the mailing list to Managing Editor, 30 N. Michigan Ave., Chicago 2, Illinois.

Subscription price of this JOURNAL to persons not members of the Illinois State Medical Society is $3.00 per year, in advance, postage prepaid, for the United States, Cuba, Porto Rico, Philippine Islands, Hawaiian Islands and Mexico. $4.00 per year for all foreign countries included in the postal union. Canada, $3.50. Single current copies, 50 cents. By mail, 60 cents.

The plan involves a maximum contribution of $50,000 each from the organizations over the next ten years, which will serve as a revolving loan bank from which loans will be made to accepted medical students at the rate of $1,000 a year to a maximum of $5,000 per student. The Society's contribution, as fixed by the Council's resolution, is limited to $2,000 the first year, $4,000 the second year, $6,000 the third year and $8,000 the fourth year, to a maximum of $50,000 over the 10-year period 1948-58.

A "Farmer and Doctor Loan Fund Board" will administer the program, composed of three members of each organization. Edwin S. Hamilton, M.D., of Kankakee, Everett Coleman, M.D., of Canton and Harlan English, M.D., of Danville, were appointed as members from the Illinois State Medical Society. The Illinois Agricultural Association, which approved the plan at its meeting in St Louis last month, had not yet appointed its delegates.

Students seeking loans under the plan must conform to certain requirements.

The principal condition, basic to the purpose of the plan, is that each must agree to return to a town of less than 5,000 population in his home county and practice general medicine, not a specialty. Other conditions are:

That the student be a native of the county from which he applies, unable to finance his training, but free of debt.

That he be recommended, in writing, by both the local medical society and the local farm bureau.

That he be able to pass the aptitude tests of the University of Illinois medical school, or the equivalent.

That his medical training be taken in an approved medical school.

That he agrees to repay money advanced from the fund at 2 per cent interest, in five annual payments after he begins to practice medicine. (If he fails to keep his agreement to practice in a rural area, the interest rate will be 7 per cent.)

That each student, to protect the loan, take out a ten-year term life insurance policy for $5,000 payable to the Board, premiums to be paid by the Board out of money lent to the student for the five years during which he is in school or internship, and by the beneficiary himself once he begins to practice until the loan is repaid in full.

That each student agree to repay the loan and accrued interest at once if he abandons his medical training.

The loans are intended to finance only the actual four-year medical course and the one year internship required by Illinois law. They will not finance high school or premedical courses.

The financing plan will make it possible to accept four new students each school year beginning in the fall of 1948 through that beginning in 1952, so that by 1957, twenty students will have been financed from the original fund.

However, by 1953, the 1948 group will have begun to repay their loans — a process that will be completed for them by 1958 — so that this money can be made available for additional students, and the whole sum can be turned over repeatedly as long as needed.

The program is believed to be the first instance of such cooperation between farm and medical groups, to solve their own problems with their own funds.

Its importance is emphasized by studies which show that replacement of doctors in downstate Illinois is not occurring, that in another ten years more than half the doctors in rural Illinois will be superannuated and that the supply of doctors is directly proportional to the per capita income of predominantly rural counties. The program is designed to meet those specific findings.

THE 1948 ANNUAL MEETING

The Annual Meeting of the Illinois State Medical Society in 1948 will be held at the Palmer House, Chicago, on May 12-14. Once more the annual meeting will begin on Monday morning and continue through Wednesday. For the first time there will be three full days of general assembly programs with all scientific sections participating, and the usual sessions of individual sections will be eliminated.

The Committee on Scientific Work (composed of the officers of the sections and the general officers of the Society) met on November 9, to make tentative plans for the scientific programs. The committee unanimously decided upon the above arrangement, which was subsequently approved by the Council. As has been

done for several years, the committee selected its executive committee to be responsible for assembling the programs for the entire session.

The meeting in 1948 should be an unusually interesting one, with the three days of general assembly programs, scientific exhibits, and the technical exhibits which are being carefully selected at this time. Quite a number of appli cations have geen received already, for the showing of scientific exhibits in the large Red Lacquer Room at the Palmer House. It is definitely assured that the usual large technical exhibit requiring the utilization of all available space, will be lined up long before the meeting begins.

In arranging the speakers and subjects for the presentation of papers before the general assembly, special attention is being given to the desires of the general practitioners of Illinois, as this will be largely their own meeting. Likewise the technical and scientific exhibits will be of interest to this same group of physicians, as has been the case in recent years.

Those members of the Illinois State Medical Society desiring to present papers before the general assembly, should write to either the officers of the sections, or the executive committee. They should give the title of the proposed presentation, as well as a short abstract to give a better opportunity for the selection of the papers of greatest general interest.

The section officers are as follows:

Section on Medicine: Theodore R. Van Dellen, Chairman, 435 Michigan Avenue, Chicago; J. C. Redington, Secretary, Galesburg.

Section on Surgery: Harry A. Oberhelman, Chairman, 30 N. Michigan Avenue, Chicago; David B. Freeman, Secretary, Fifth Avenue Building, Moline.

Section on Eye, Ear, Nose and Throat: Paul H. Holinger, Chairman, 700 North Michigan Avenue, Chicago; Perry E. Duncan, Secretary, Springfield.

Section on Public Health and Hygiene: Robert Dessent, Chairman, 737 S. Wolcott Avenue, Chicago; Jerome J. Sievers, Secretary, State Department of Public Health, Springfield.

Section on Radiology: Cesare Gianturco, Chairman, 602 W. University Avenue, Urbana; John H. Gilmore, Secretary, 720 N. Michigan Avenue, Chicago.

Section on Pediatrics: Frederick H. Maurer, Chairman, Peoria; Eugene T. McEnery, Secretary, 4458 W. Madison Street, Chicago.

Section on Obstetrics and Gynecology: Harold Miller, Chairman, 30 N. Michigan Avenue, Chicago; W.C. Scrivner, Secretary, East St. Louis.

Section on Pathology: S. A. Levinson, Chairman, 915 E. Hyde Park Boulevard, Chicago; George Milles, Secretary, 411 W. Dickens Avenue, Chicago.

The Executive Committee consists of: Theodore Van Dellen, Chairman; Paul H. Holinger, Vice-chairman; Harold Miller, Secretary; John H. Gilmore, Assistant Secretary.

Members of the Illinois State Medical Society desiring to present a paper at the annual meeting in 1948, should write to the appropriate section officer, or direct to the Executive Committee as early as possible as it is the desire of these groups to get the program completed at the earliest possible moment.

It is the desire of everyone responsible for making final arrangements for the 1948 annual meeting to arrange a program which will appeal to the membership as a whole, and once more to have an outstanding meeting in Chicago on May 12-14, 1948.

ADMISSIONS TO ILLINOIS RESEARCH AND EDUCATIONAL HOSPITAL

In response to queries from members, the Secretary of the Illinois State Medical Society has contacted A. C. Ivy, M. D., vice-president of the University of Illinois, and M. C. Benford, M. .D., director of admissions, regarding the university's policies governing admissions of patients to its Research and Educational Hospitals in Chicago. The information obtained is here summarized for the benefit of members throughout the state:

Two types of service are offered by the university's Research and Educational Hospitals — inpatient and outpatient. The hospitals reserve the right to assign patients to either, depending on individual need and available facilities.

The hospitals are operated and maintained by the University of Illinois for the advancement

of medical education and clinical investigation. The limited bed capacity per service therefore necessitates basing admission primarily on the teaching or investigation value of the case. At the same time it is required that family income must be inadequate to procure medical attention from private sources. All patients must be American citizens and must have been resident in Illinois for at least one year.

That plan of admission also limits the number of cases of any one particular type which may be accepted during a given period and prohibits consideration of patients with diseases of contageous or custodial nature. The period of hospitalization is necessarily limited; patients are therefore discharged at the discretion of the department to which they are assigned.

The university's statement of policy governing admission of patients provides that:

"Applications for admission of a patient should be addressed to the Medical Director and accompanied by a letter from the attending physician stating the name, age, sex of applicant, history of present complaints, clinical and laboratory findings, impression or diagnosis and family income. The referring physician should also state whether the patient's condition will permit use of the Outpatient Service, which normally requires several visits to the clinic before completion of diagnostic procedures and therapy. All admission requests are reviewed for medical interest by the service concerned and the applicant or referring physician will be informed whether or not the case may be admitted."

Patients should not be sent or brought for hospitalization until a definite appointment has been made, and referring physicians should state whether the patient's condition is such that the outpatient facilities may be utilized.

Although medical service is provided free, certain fees must be assumed by the patient. Patients in the outpatient department pay a 40-cent registration fee, pay for all medicines, x-rays, laboratory service, special appliances, and special therapy. Hospital patients pay for special medications and appliances and for transfusions where personal donors are not available. Those patients with hospitalization insurance

FORM USED IN APPLICATION FOR ADMISSION

University of Illinois
Research and Educational Hospitals

APPLICATION FOR ADMISSION

Name of Patient
Sex Nationality Age Marital Status
Address City
Birthplace Date Citizenship
How long has applicant lived in Illinois
Referred by
Reason for referral
Impression or Diagnosis
Medical Summary — Give present symptoms, duration of illness, clinical laboratory and x-ray findings (x-ray films to be mailed, if available) and statement whether patient is ambulatory and able to report for clinic examination and care. Must be filled out by the physician.
.....
.....
.....
.....
(Use reverse side if necessary)
Physician's
Signature

INCOME

Head of family Income
Occupation Employed by
Other income Insurance Savings

EXPENSE

Number of dependents Children Ages
Rent Other fixed expense
(This blank must be completed in full) April 28, 1947

are asked to present their policy and furnish a waiver of the benefits available.

Dr. Ivy, vice-president in charge of the Chicago professional colleges of the University, pointed out that "due to the limited beds available, we can accept only ten per cent of the patients referred to us, all except a few from the Dispensary being referred by a physician."

"Since it is necessary to present to the students patients with a variety of disease, this, in view of the limited bed capacity, restricts the type of patients we can accept and, also, materially hampers clinical investigation," Dr. Ivy wrote.

"It was to relieve these deficiencies that, at the last session of the Legislature, we asked for an appropriation for a Hospital for Chronic Illness and Geriatrics, with a capacity of 200 beds plus research facilities. With such a hospital is would be possible to teach in an emphatic way those chronic diseases which the physician most commonly sees in practice and to investigate effectively such diseases as nephritis, hypertension, allergy, rheumatic fever, cirrhosis of the liver etc.

"At present, we cannot conduct such investigation, as they can in a few hospitals in the East and at the Mayo Foundation, because, for example, we have no place to put 15 or 20 hypertensives and 15 or 20 nephritics for careful and intensive study."

Dr. Ivy noted that, since the medical school is supported by the state, the university is planning and attempting to extend "downstate" any services rendered the medical profession.

"We try not only to keep the students accepted for admission equally divided between Cook County and 'downstate,' but also to do the same for the patients in the hospital."

Dr. Ivy also supplied the summary of the number of beds in service by wards and the sample application blank for admission.

BEDS IN SERVICE BY WARDS

2 East		40
Pediatrics	28	
Surgery	4	
Oral Surgery	3	
Neurosurgery	2	
Ophthalmology	2	
Otolaryngology	1	
2 West		30
Obstetrics	30	
(Nursery — 24 Bassinets & Incubators)		
(Not included in bed count)		
3 West		17
Gynecology	17	
3 Center		20
Medicine	20	
3 South		40
Dermatology	7	
Medicine	33	
3 East (Medicine)		14
Navy Convalescent	10	
Army Nutrition	4	
4 East		35
Surgery	35	
4 West		38
Urology	10	
Ophthalmology	6	
Otolaryngology	12	
Orthopaedics	10	
Orthopaedics Building		110
1st floor	29	
2nd floor	30	
3rd floor	35	
4th floor	16	
Total General Hospit		344
Illinois Neuropsychiatric Institut		84
Neurological Surgery	42	
Psychiatry	32	
Child Psychiatry	10	
Total, INI		84
TOTAL, INCLUDING INI		428

DR. ISAAC ABT AND HIS CONTRIBUTION TO PEDIATRICS

A. Levinson, M.D.
CHICAGO

Many and varied are the contributions made to pediatrics by Dr. Isaac Abt. As practitioner, clinician, teacher, writer, editor, he has left his impress on every phase of pediatric progress for more than half a century. Throughout his long and fruitful career, Dr. Abt has looked upon pediatrics as more than a profession. To him it has been a principal to uphold, an ideal to live by.

Dr. Abt's written contributions to the field of pediatrics, cover a large variety of subjects embracing every phase of child health. One of his first articles, published in 1901, was on floating kidneys in children. This was followed by a paper on typhoid fever in children, published in 1902. Other articles followed in close succession: Rachitic Erosions of Permanent Teeth, 1908; Cathartics in Infants, 1909; Traumatic

Read before the Chicago Pediatric Society, December 16, 1947, on the occasion of Dr. Abt's 80th birthday.

Diabetes Mellitus, 1911; Chorea, 1916; Familial Icterus, 1916; Skin Defects, 1917; Meckle's Diverticulum as a Cause of Intestinal Hemorrhage, 1926; Significance of Lymphocytosis in Infants and Children, 1928; Relationship between Speech and Intelligence, 1929; and many more too numerous to mention in a short paper.

Of particular interest are Dr. Abt's articles on the nutritional disorders of childhood: History and Classification of Gastro-Intestinal Diseases, 1912; Starch Injuries, 1913; Acid Intoxication, 1914; and Nutritional Disturbances of Infancy, 1924.

Dr. Abt's illuminating contributions to national and international encyclopedias of pediatrics, have spread his name and fame, far beyond the confines of state and country. His excellent articles on Tuberculosis and on Typhoid Fever (1906) were published in the *Practice of Pediatrics,* edited by Walter Carr. His chapter on Rachitis, written in 1913, appeared in Forcheimer's *Therapeutics of Internal Diseases.* In 1919, he contributed a section on "Milk in its Relation to Infant Feeding" to Heinemann's book on *Milk.* (I am proud to add that I had the privilege of collaborating with him on this chapter.) In 1930, he wrote a treatise on the Morbidity and Mortality of Tuberculosis in the United States, for Engle and Pirquet's *Handbuch der Kindertuberkulose.*

Dr. Abt. not only wrote for others. He also edited his own books of encleopedic information. As the editor of the Pediatric Yearbook from 1906 to the present day, he has rendered an invaluable service to thousands of pediatricians throughout the county. As his collaborator from 1916 to 1921, I know how much time and energy he devoted to the editing of these volumes and to the writing of his editorial notes. The yearbook, which contained brief and lucid reviews of the most important advances in pediatrics, served as a boon not only to the pediatrician but to the general practitioner who sought the latest word in the care and treatment of children.

The crowning glory of Dr. Abt's success as an editor, is his "Pediatrics", which appeared in eight volumes, from 1923 to 1926. In this *System*, Dr. Abt brought together the finest and best in pediatrics here and abroad, in a word, everything new and fundamental in pediatrics. From the first chapter which presents the history of pediatrics written by the master historian, Garrison, to the last on Animal Parasites by Ward, the *"System"* is filled with the most authoritative information obtainable. Although many changes and improvements have made their way into the field of pediatrics since the *System* was published, it will always remain a source book of pediatric knowledge.



Isaac Abt, M.D.

Dr. Abt's talent as a writer is shown in his own book as well as in his articles and chapters in the books of others. Among his books should be mentioned his fine translation of Hecker and Trump's Atlas on Disease of Children, one of the most beautiful atlases in medicine. A popular and helpful guide in its day, was *The Baby's Food,* which appeared in 1917. Dr. Abt's most recent *magnum opus, The Baby Doctor,* published in 1944, is a fascinating memoir of a half century of pediatric progress. This book, although written for the laity, can be read with pleasure and profit by every physician.

Of particular significance is Dr. Abt's special contribution to the history and development of pediatrics in Chicago. As one who stood at the cradle of pediatrics in this country and at the helm of pediatrics in this city, none was

more fitted than he to write the story of the rise and growth of pediatrics here and elsewhere. Interesting indeed is his article on Hufeland, the German pediatrician. Fundamental is his chapter on the history of pediatrics in Brennemann's Clinical Pediatrics. Particularly informative and convincing is the portion of the article dealing with the history of contemporary pediatrics.

No one could write the history of pediatrics with greater authority than could Dr. Abt, for he knew practically every pediatrician in his time. He was acquainted with their work; he knew many of them personally. We hope that some day he will enlarge upon his fine chapter on medical history and make a comprehensive book of it. At that time, too, we trust that someone will make good the omission of which Dr. Abt, in his innate modesty, was guilty — the inclusion of Dr. Abt's tremendous personal contribution to the history of pediatrics.

Dr. Abt has always been one of the foremost exponents of modern pediatrics. He was the first to introduce to this country the Czerny-Finkelstein philosophy of nutritional disorders — that diarrhea in infants was caused by metabolic disturbances rather than by anatomic changes in the gastrointestinal tract. He was also the first American pediatrician to use protein milk in the treatment of diarrhea in infants. To Dr. Abt also goes the credit for the introduction of the Heubner caloric system of infant feeding.

When all gastrointestinal disturbances were considered anatomic and not metabolic in origin and when the "Boston Gospel", to quote Jacobi, prescribed the percentage method as the only form of infant feeding, Dr. Abt was courageous enough to introduce a revolutionary thought in nutritional disorders and in infant feeding.

When Dr. Abt began pediatric practice years ago, there were very few pediatricians in this country. In the East, there was Abraham Jacobi, the "Father" of American pediatrics, Job Lewis Smith, one of the famous Smith brothers, and Emmet Holt who was just beginning to gain recognition. In the West, there were several doctors who taught pediatrics at the various universities: Marcus Hatfield at Northwestern University Medical School, Walter Christopher at the College of Physicians and Surgeons, and Alfred Cotton at Rush Medical College. None of these men, however, limited his work entirely to pediatrics. It was Dr. Abt alone who devoted all his time from the outset to the study and care of children. He prepared himself thoroughly for the practice of his specialty by studying under the great masters in European pediatrics — Widerhofer, Monte, Escherich and Kassovitz. On his return to the United States, he devoted a great deal of his time to dispensary and hospital practice.

Dr. Abt's name is actively linked with many of the hospitals in this city. He was the first attending physician in pediatrics at the Cook County Hospital and at the Michael Reese Hospital. He served on the pediatric staffs of St. Luke's and the Children's Memorial Hospital.

It was Dr. Abt who conceived and planned the Sarah Morris Hospital and who was the guiding spirit of the institution for many years. Every improvement of which the hospital boasts was due to his relentless vigilance. He fought for every inch of ground; for isolation of infectious cases, for milk for the babies, for better nursing care.

One can multiply tenfold the instances of contributions made by Dr. Abt that were recorded not in words but in deeds. Among the many, one must mention his efforts toward elevating the practice of pediatrics into a specialized art, a model for younger men to follow and his great influence as a teacher and colleague.

As a teacher, Dr. Abt had no peer. He trained and inspired those he taught. His lectures, which were always well prepared, were an event in the lives of his students. His simple manner, his lucid illustrations, his ready wit, made listening to him a liberal education and a great pleasure. His words of wisdom were eagerly devoured not only in the class room and in the lecture hall but at ward rounds, at postgraduate courses, at out-of-town discussion groups and at medical conventions. He always had something worth while to say and said it briefly and forcibly. The many honors bestowed upon him by American and foreign societies were a tangible indication of the respect and admiration he evoked in medical groups everywhere.

There is so much to say about Dr. Isaac Abt as a physician to children, as a writer of books about children, as a scholar and editor, as a teacher and lecturer, and above all, as a great

humanitarian, but unfortunately, I have been limited to the subject of Dr. Abt's contribution to pediatrics.

And now in closing, may I add my personal tribute to the honored guest of this evening:

Those of us who have had the privilege of knowing Dr. Abt for the past generation, feel grateful indeed to have had the benefit of his advise and council, the inspiration of his teaching and guidance.

To the world, Dr. Abt will be known as the leader of Pediatricians. To us, his students and co-workers, he is that and more — he is the great teacher, the respected colleague, the beloved friend. We are happy to pay homage to the youthful spirit of one who has reached the venerable age of three score and ten and ten again. We wish him many more years of fruitful activity, many more years of health and happiness.

DEATH OF WELLINGTON PORTER SHAHAN

Wellington Porter Shahan, Executive Secretary of the Illinois Tuberculosis Association, died on November 21, 1947. He was stricken with pneumococcic meningitis while attending meetings of the Executive Committee and Board of Directors of the Association in Peoria, November 17.

Born June 1, 1904, in Milton, N. Y., Mr. Shahan entered tuberculosis control work upon his graduation from Brown University. After completing Junior Staff training with the national Tuberculosis Association, he was Director of Field Service for the Indiana Tuberculosis Association. He came to Illinois as Executive Secretary in February, 1930.

Mr. Shahan served as president of the National Conference of Tuberculosis Secretaries, the Mississippi Valley Conference on Tuberculosis and the Illinois Public Health Association. He had also served as secretary of the NCTS and was advisory consultant to the Division of Tuberculosis Control, United States Public Health Service.

During the war, Mr. Shahan voluntarily served as Executive Secretary of the Downstate Section, Tuberculosis Division of the Selective Service Board. He received the Selective Service Medal for his work in connection with this Board.

Mr. Shahan is survived by his wife, George Ambrose Shahan; two daughters, Alexine and Elizabeth; and his mother, Mrs. Mary Shahan, Saugerities, N. Y.; a brother, George, Seattle, Washington, and a sister, Mrs. Eunice Scott, Remsen, N. Y.

The body was taken to Saugerties, N. Y. where the funeral and burial were held.

Pending the appointment of a successor to Mr. Shahan the Association office will continue to function as efficiently as possible.



Medical Economics

The Medical Economics Committee — Chauncey C. Maher, Chmn., 6 North Michigan Avenue, Chicago, Edwin S. Hamilton, V. Thomas Austin, Emmet B. Bay, Jay McDonald Milligan, George Halperin, Marie Wessels, Thomas C. Browning, Roland R. Cross, Milton E. Bitter, Edwin F. Hirsch, Ford Hick.

TRENDS IN LABORATORY SERVICE IN HOSPITAL PRACTICE

Clinical pathology and pathologic anatomy have grown in hospital practice in measures far beyond anything thought probable twenty-five years ago. In fact, before World War I, only the large hospitals had given thought to clinical laboratory facilities as an organized unit, and few indeed were the laboratories of such hospitals that had even the part-time services of a pathologist. Many of the part-time pathologists were engaged in developing their private practice — the larger interest — and serving the laboratory was a more-or-less temporary medium of subsistence.

The clinical laboratory examinations at that time were limited mainly to blood counts, hemoglobin estimations, differential counts, urine analysis, stool examinations for blood and parasites, some form of the Wassermann test of serums and spinal fluids, and a limited amount of bacteriology. Methods for chemical analysis of the blood were unknown or just beginning to be developed. Estimates of the urea content of the blood were the first. The colorimetric methods for blood analysis devised by Folin shortly thereafter (1919) opened the way for routine chemical analysis of the sugar and nonprotein nitrogen substances of the blood, in addition to the urea content. Refinements of these methods and additions have brought the methods of blood analysis to the present level.

The practice of pathologic anatomy, including the examination of a modicum of surgical tissues, was restricted to the pathology departments of the medical schools and an autopsy outside of these circles was done by the doctor himself. These conditions have changed and with the practice of medicine moving into higher levels and being extended more widely into communities, clinicians more and more depend upon the results of laboratory procedures in the diagnosis and the guidance of treatment of their patients. The present generations of surgeons is becoming so imbued with the need of routine tissue and biopsy examinations by trained pathologist that the omission or restriction of such a service arouses a strong protest. Hospitals, especially those with teaching programs are now reporting high percentages of autopsies on deceased patients.

The patient load of hospitals which today is at its peak in all communities is reflected in the demand for examinations by the laboratory. Observations over many years in graph curves of the rising volume of laboratory examinations in a large hospital have raised the question when a saturation level would be reached and when the curve, rising year by year, more abruptly in some than others, would level off and become more or less flat. There is no indication of such a trend and every new procedure or examination simply increases the total volume.

The means of meeting these trends in hospital practice include physical organization, personnel, equipment, and the integration of the laboratory into the total machinery of the hospital. If the pathologist can have some part in planning the floor space of the laboratory or is given ample opportunity to express himself in the revision of constructed space into laboratory purposes, he would do so well to think in larger terms

than his first ideas indicate. This remark is conditioned for the reason that usually the architect of the hospital speaks, so to say, for all, and his thinking under pressure from other groups contracts the allotted laboratory space and may even place it somewhere inaccessible or at a disadvantage from the standpoint of efficient operation in the institution. Instead of being thonght of in terms of first importance in a hospital, the laboratory is rated at a level below bed space, administration, etc. This form of planning in hospital construction either belittles the thinking quality of the attending staff and holds it to a level where skimpy laboratory service is considered sufficient, or it sets a low level of expected medical practice in such a hospital and with dogmatic finality implies that this is the form of diagnosis, treatment and care which patients of that institution should have.

To cover the large demands for laboratory services the work should be distributed into various departments such as hematology, urinalysis including stomach analysis, bacteriology, serology, blood chemistry, tissue sectioning, parasitology, blood bank, etc. Where control is possible, the physical arrangements of these departments should be segregated into separate small rooms rather than collected in a large room with multiple activities and attendant confusion. Hematology with its special equipment is obviously different from the other departments and each of the other departments has specific requirements as regards physical arrangement and equipment. The size and organization of the personnel in these departments is determined by the volume of work. Where personnel requirements permit, each department is in charge of a technician with special training and ability to assume full responsibility with guidance. The further personnel requirements are determined by the work volume. Such a plan of organization covers the work requirements and provides a teaching framework for training other technicians under close supervision. The integration of the laboratory functions into those of the hospital and specifically to the medical care of the individual patient may be complex, especially when a large number of diagnostic procedures are requested during a minimal stay of the patient in the hospital. These are usually specific problems and their solution depends upon an analysis of the conflicting elements, and they frequently can be adjusted.

Within recent years the photometric estimation of color concentration has changed the methods and increased the accuracy of many of the procedures now used in chemical examinations of the blood. Hemoglobin concentrations were among the first to be determined by this method, but analysis of other blood constituents have followed. Many of the instruments use filters at characteristic wave lengths, others are made with prisms and calibrated for the entire range of colors in the spectrum. The preparation of graphs and charts for analysis by these instruments has disclosed instabilities in the color developed which made necessary further studies into temperature and light conditions, reagents, time elapsing between the mixing of the reagents and the reading of the color value. The system of photometric analysis has naturally eliminated the use of the ordinary colorimeter and new methods with this instrument have shortened considerably some of the old standard methods, notably the urease method for ureadetermination and the plasma proteins of the blood. Other analysis as with hepatic disease, which were not possible with the ordinary colorimeter, are now made by photometric analysis. It seems that probably many more examinations in the field of blood chemistry will be devised for the photometer.

The use of whole blood and blood plasma in simple therapy, emergencies as with shock and hemorrhage, and to support a patient during a long surgical operation has become so common a practice that all large hospitals have made provisions for meeting this need. The laboratory is usually called upon to organize and develop these facilities and many problems are connected therewith. The sterile precautions necessary in collection and preservation of the blood and plasma, the care in compatibility and other serologic tests, the processing of the equipment needed to give the transfusion, and all of the details of procedure necessary to deliver safe blood to the proper recipient become accordingly the responsibilities of the laboratory.

The laboratory engages in many activities that are not strictly in the performance of clinical tests. They may be considered in the general theme of teaching. This may be in pro-

viding instruction for technicians or for physicians who need a period of training in morgue and surgical pathology for their specialty, and for others who wish to specialize in clinical pathology and pathologic anatomy. These are functions that can be developed only at the higher levels of laboratory organization and with sufficient material for training purposes. Dealing more specifically with the professional group means adequate surgical and autopsy tissues. The routine gross and microscopic examination of the surgical tissues can be organized in conference groups with young physicians, under close supervision by the pathologist. The same applies to the postmortem examinations where under close supervision the trainees are given the routine procedures for a complete necropsy, the preparation of the record, anatomic diagnosis and clinical brief, and subsequently a record of the histologic study of the sections.

Integrated into these activities are those concerned with presenting autopsy material in clinical pathological conferences for the resident and attending staff of the hospital. Recognizing the full value of the fundamental principles of visual education in large group discussions, the presentation of material in the clinical-pathological conferences can be accomplished by projections on a large screen. This is done with three projectors, an opaque object projector, a lantern slide projector and a micro-projector for histological preparations. The clinical brief is flashed on the screen and at the same time it is read to the group by a resident. This is followed by supplemental comments and corrections by the resident and attending physician. The pathologist then gives the essentials of the anatomic diagnosis, also projected on the screen, and reviews on the screen the tissues of the autopsy, giving at the same time a running account of the conditions disclosed by the necropsy. This review is supplemented by kodachrome slides of the essential tissues and a projection of the histology. A summarizing statement by the pathologist closes his remarks and a general discussion by the attendant members of the staff and visitors follows. The tissue details and color brilliance of the kodachrome slides arouse much interest and enthusiasm in these conferences. The 3¾ by 4 professional type B cut film is advantageous because it can be displayed in viewing boxes without magnification and filed in systems in photographic museum collections. The tissues to be photographed are blocked out during the postmortem examinations or prepared, if in surgical material, fixed to retain natural color and then photographed with a special illuminated box. These activities indicate that a well developed photographic department is an integral factor in such teaching activities for preparing the kodachrome slides, making negatives for black and white prints, and for photomicrography. A photographic museum may be developed in this way with prints and lantern slide material catalogued for the use of the entire staff. Activities such as these increase the value of the laboratory to the hospital and develop a sense of helpful co-operation and good will among the resident and attending staff.

These are some of the trends in the laboratory service in hospital practice. Research activities, of course, are part of such an organization, whether it be large or small. This spirit of investigation develops a curiosity to know more, it spreads like a leaven into the routine and gives zest to the general morale of the laboratory personnel. The laboratory is constantly in a flux, never static, and continually working to improve itself and the practice of medicine.

E. F. H.

State Department of Public Health

PROGRAM FOR PREMATURE BABIES

In recent years it has become apparent that efforts to further decrease infant mortality effectively must be concentrated in the neonatal period. The great advances which have been made in reducing deaths among older infants, especially through sanitation measures and communicable disease control, have had comparatively little effect on deaths in the first month of life. Thus, in the 25 years from 1915 to 1940, deaths among infants one to twelve months of age in the registration area of the United States were reduced from *55.5* to *18.9* per 1,000 live births, a decrease of *66 per cent,* while deaths under one month were reduced only from *44.4* to *28.8* per 1,000 live births, a decrease of *35 per cent.* Neonatal deaths now constitute approximately two-thirds of all the deaths in the first year of life.

Examination of the causes of neonatal deaths shows that the largest single cause is premature birth. Almost one-half of the deaths in the first month of life are due to this cause. Indeed, a fact not often emphasized is that prematurity stands out also as the largest single cause of death throughout the whole infant period: in this country in 1944, 30 per cent of the total deaths occurring under one year of age were due to this cause. Using the generally accepted figure of five per cent of live births as the incidence of premature births, it becomes apparent that this group of five per cent of our infants contribute 30 per cent of the infant deaths. The large majority of these deaths occur of course in the neonatal period. The reasons for the generally high mortality rate in this group are well known to all of you. The fact remains that here is a group, important not only as statistics, but as individuals, about whom we are greatly concerned.

Important studies have been carried on and must be continued regarding the causes and prevention of premature births. Until the time when positive results are obtained from these studies, an immediate and practical attack on the problem would seem to be that of saving the lives of those infants who are born prematurely.

For several years it has been recognized that special care for these infants will save a certain number who would otherwise die. Individual hospitals have set up special facilities for the care of their own prematurely-born infants. In a few cities, notably Chicago, action has been taken by the city health department for provision of special care in certain designated hospitals.

We in Illinois have been interested for a number of years in methods of providing similar special care for infants in areas outside metropolitan Chicago. Some years ago we supplied local health officers and county nurses with simple heated beds so that infants cared for in hospitals or at home could have the benefit of at least one recognized essential — constant warmth. However, it was recognized that this effort could not begin to solve the problem.

In 1942, plans were made in our Division of Maternal and Child Health for the establishment of Premature Centers in two downstate Illinois hospitals. These Centers were to provide completely modern, specialized care for pre-

mature infants, whether born in the Center hospitals or referred from other hospitals or homes. The special facilities included a separate nursery, modern incubators and other special equipment, nursing care given by nurses who had post-graduate training in the care of premature infants, and medical supervision provided by qualified pediatricians. The first patients were admitted to the two Centers in 1943, and the program has grown steadily since that time under the fine leadership of Dr. Henrietta Herbolsheimer, who until recently was the Chief of our M. C. H. Division. Rigid standards of care in the Centers have been established and maintained, policies and procedures have been worked out, and on this sound basis it has been possible to provide the best of care to progressively increasing numbers of infants each year.

Through grants of funds from the Children's Bureau we have been able to pay the Centers for the hospitalization of infants who would otherwise be denied this special care because of inability of the family to pay. Similar financial arrangements have enabled the Department to pay, where necessary, for the ambulance transportation of infants from outlying areas of the State to the Centers. Funds have also been made available for providing special training for nurses serving in these Centers.

Integration of the phase of hospital care with later home care has been accomplished through the fine cooperation of local health departments and public health nurses. These nurses visit the homes to help prepare for the return of the infants from the Center, and give as much assistance with the later home care as is necessary in each case. Thus the benefits of early specialized care are not lost, since the infant does not return to a home situation that will be detrimental to his health.

In the 4½ years of operation, 1800 infants have been cared for in these Centers, with good results. This figure does not begin to approach the number of infants in downstate Illinois who have been born prematurely in this period of time, but we feel it is a good start toward our goal of seeing that facilities are available for every infant who needs this care. The two Centers operating at present have expanded their quarters, but cannot at all times meet the demands for service. Expansion of the program through the establishment of additional Centers located in other parts of the State is planned for the immediate future and should bring us gradually closer to our goal.

Through the hospital construction program we shall have an additional means of getting properly-equipped hospital facilities into the local communities. Continuation and expansion of the training program for professional personnel who provide the care for the infants will help to complete the picture.

On the basis of results obtained so far in this program in Illinois, we confidently expect that we will see a significant decrease in the neonatal deaths due to prematurity.

ROCHE-ORGANON AWARDS IN ENDOCRINOLOGY

Three awards of $500.00 each have been sponsored by Roche-Organon Inc., hormone research manufacturers, for scientists in recognition of their recent, outstanding research in these fields of endocrinology, animal experimentation, hormone chemistry, and clinical endocrinology. The winners of the 1947 awards are: Dr. Fuller Albright (clinical endocrinology), Dr. Robert D. H. Heard (hormone chemistry), and Dr. Dwight J. Ingle (animal experimentation).

The winners of the Roche-Organon awards were selected by the Committee on Awards of the Laurentian Hormone Conference which consists of Dr. Roy G. Hoskins, Chairman, and Drs. Edwin B. Astwood, Thomas F. Gallagher, Allan T. Kenyon, Robert L. Noble, and Abraham White. The awards were presented at the 1947 Laurentian Hormone Conference held recently at Ste. Adele, Quebec, Canada.

Correspondence

ACTIVITIES OF THE WOMAN'S AUXILIARY

The fall board meeting of the Woman's Auxiliary to the Illinois State Medical Society was held at the Congress Hotel in Chicago, on November 13th, 1947, with thirty-eight state officers, chairmen, county presidents and county presidents-elect in attendance.

Dr. Darwin B. Pond, chairman of the advisory committee, was the guest speaker. His talk was most inspiring and encouraging to all present, making each of us feel that our efforts in auxiliary work have been fruitful. He praised the auxiliary for its contribution to public relations and health education and also for the interest shown in supporting the benevolence fund.

Since organization and increased membership is being stressed this year throughout the various states, the organization chairman has written to all auxiliary councilors requesting them to write all the presidents and secretaries of the medical societies, in unorganized counties in their districts, seeking their cooperation and permission to organize auxiliaries in these counties, or assist in securing members at large.

As ours is a challenging task, it is our responsibility, as physicians' wives, to enlighten citizens of our communities on what, we as a group of medical people believe and encourage, always bearing in mind that we are an auxiliary to the medical profession.

The wife of the physician in a small city or town needs encouragment, as she is practically an individual auxiliary in her own right. It would be impossible for her to set up a health program alone, but let her be the spark to start such a program and with her advice and assistance, many citizens will be reached and enlightened on health subjects.

All county auxiliaries have excellent programs outlined for the year, on subjects pertaining to health, medical legislation, child welfare, cancer, tuberculosis and many other health measures to be given by outstanding speakers of the medical profession. The public will be invited to attend these programs so that, they may become better informed in matters of health education.

Many auxiliary members hold office or chairmanships in Federated Women's Clubs, P. T. A. groups and Health groups. One councilor has organized a lay medical program for a branch of the American Association of University Women.

All county auxiliaries are working towards a goal in contributions for the benevolence fund. Since the institution of this project, the auxiliary has contributed nine thousand five hundred sixty-seven dollars and forty-seven cents ($9,567.47), a record for which it is extremely proud, and by the close of the year they are expecting to add another substantial amount.

Subscriptions to the magazine, Hygeia, are being placed in schools, public reading places, physicians' and dentists' reception rooms, by auxiliaries. They are also encouraging their friends and neighbors to listen to radio broadcasts being sponsored by the American Medical Association.

The convention chairman, Mrs. Paul Bucy, reported that plans are well under way for the annual convention to be held in Chicago, at the

Congress Hotel, on May 10th and 11th 1948. All physicians' wives are invited and urged to attend the business session and social functions of the convention. Will you wives, who are not members of the auxiliary, please accept this invitation, and assist in making the attendance of the 1948 convention one of the largest in the history of the organization? The auxiliary extends to every physician's wife a hearty welcome to meet with us on this occasion. May we depend upon you?

Mrs. John Soukup,
State President.

BULLETIN OF THE WOMAN'S AUXILIARY TO THE AMERICAN MEDICAL ASSOCIATION

To the Woman's Auxiliary:

Another year is well under way to further the aims and objectives of the Auxiliary and no doubt all of us believe we are doing our best. However, there is seldom a time when a job cannot be done just a little better with more information, advice and example.

In our work the foregoing assistance is largely to be found in the pages of the *Bulletin* of the Woman's Auxiliary to the American Medical Association.

By this time every officer and member of the Auxiliary should be familiar with and a subscriber to our only organ of national and proper information upon which our continued success is dependent.

Your county *Bulletin* chairman has all the data and will be happy to receive your subscription for this valuable publication.

Mrs. R. E. Johnson,
State *Bulletin* Chairman.

HYGEIA

Hygeia is one of the best means the auxiliary has of getting authentic health information into the hands of the public. A real contribution is made when *Hygeia* is placed in as many localities as possible where lay people will have access to it. There was a substantial increase in the number of subscriptions turned in during the past year from all the states. It is the desire of your chairman, that Illinois be the leading state in this work for the coming year. As true value of *Hygeia* becomes more apparent, all county auxiliaries will wish to participate in this most worthy activity.

Let us strive to have every auxiliary member a *Hygeia* subscriber. *Hygeia* should be on the reception room table in the office of every physician and dentist, in our schools and public reading places. Use *Hygeia* in conjunction with public relations and health programs.

With the assistance of each member this goal will be reached.

Mrs. Victor E. Engelmann
State Hygeia Chairman.

BASIC SCIENCE REFRESHER COURSE

Application of the Basic Sciences to Clinical Medicine. This course will consist of lectures which will cover the phases of chemistry, physiology, bacteriology, pathology, and pharmacology which are directly applied in the practice of internal medicine as well as clinical medicine. Daily ward rounds in small groups will offer practical demonstrations with patients and emphasize probems in physical diagnosis. Clinical conferences with the pharmacologist, bacteriologist, and pathologist will further aid in the correlation. Fee, $100.00. January 5 to 31, 1948.

Requests for furthur information should be addressed to: Howard H. Cummings, M. D., Postgraduate Medicine, University of Michigan, Ann Arbor, Michigan.

TICE LIBRARY

At their reunion meeting the Cook County Hospital Internes' Alumni Association announced plans for the establishment of a new medical library to be located in the Cook County Hospital.The library is to be founded in the name of Dr. Frederick Tice, who has been associated with the hospital for over 50 years. Alumni have contributed over $25,000 of the $75,000 estimated cost, and it is hoped that the balance of this fund will be contributed by other alumni, friends and persons interested in this project. The Association hopes to make available to mem-

bers of the resident and the interne staffs, as well as the attending staff, the texts, monographs and journals necessary for reference in clinical and experimental investigation. The library will be adjacent to the record library of the hospital so that case histories may be studied and the results made available thru publications.

The program of the Association included medical and surgical clinics at which former alumni including Drs. James B. Herrick 1888, Frederick Tice 1894, Dallas B. Phemister, 1904, Vernon C. David, 1907, and Egon Fishman, 1907, all of Chicago, participated. Dr. Nelson W. Barker, 1924, of the Mayo Clinic, spoke at the Cook County Graduate School. Officers elected, all Chicagoans, were Drs. Manuel E. Lichtenstein, President; Edmund F. Foley, Vice President; William J. Baker, Secretary and Treasurer, and Chester Guy, former President, was made a member of the Board of Trustees.

A new Alumni Directory has been published. Copies may be obtained by writing to the Secretary, Dr. William J. Baker, 7 W. Madison St., Chicago.

IOWA AND LLINOIS CENTRAL DISTRICT MEDICAL ASSOCIATION

The quarterly meeting of the Iowa and Illinois Central District Medical Association was held Wednesday November 19 at the LeClaire Hotel in Moline, Illinois.

Dr. B. K. Ozanne an anesthesiologist of Moline spoke on "Use of Curare in Anesthesia". At 8:30 P. M. Dr. A. Walter Wise of Rock Island introduced the guest speaker Dr. Henry T. Ricketts of Chicago who spoke on "Newer Aspects of Diabetic Management".

The next quarterly meeting will be held March 24, 1948 in the Fort Armstrong Hotel in Rock Island, Illinois. The guest speaker will be Dr. Maurice Grier of Omaha, Nebraska who will speak on "Prolongued Labor".

MISSISSIPPI VALLEY MEDICAL SOCIETY 1948 ESSAY CONTEST

The Eighth Annual Essay Contest of the Mississippi Valley Medical Society will be held in 1948. The Society will offer a cash prize of $100.00, a gold medal, and a certificate of award for the best unpublished essay on any subject of general medical interest (including medical economics and education) and practical value to the general practitioner of medicine. Certificates of merit may also be granted to the physicians whose essays are rated second and third best. Contestants must be members of the American Medical Association who are residents of the United States. The winner will be invited to present his contribution before the Thirteenth Annual Meeting of the Mississippi Valley Medical Society to be held in Springfield, Ill., Sept. 29, 30, Oct. 1, 1948, the Society reserving the exclusive right to first publish the essay in its official publication — the Mississippi Valley Medical Journal. All contributions shall be typewritten in English in manuscript form, submitted in five copies, not to exceed 5,000 words, and must be received not later than May 1, 1948.

Further details may be secured from
Harold Swanberg, M. D., Secretary,
209-224 W. C. U. Building, Quincy, Illinois.

THE MIDWESTERN SECTION OF THE AMERICAN CONGRESS OF PHYSICAL MEDICINE

Will hold its annual sectional meeting and seminar February 26-27, 1948, at the Veterans Administration Hospital, Hines, Ill. Registration at 10:00 A. M. Thursray, Feb. 26. A seminar on spinal cord injuries will follow at 11:00 A. M. The program includes conducted tours of the physical medicine rehabilitation activities at the hospital. All sessions will be open to physicians, other professional personnel and their guests. For information concerning the meeting, address the Chairman, Dr. L. B. Newman, Chief, Physical Medicine Rehabilitation Service, V. A. H., Hines, Ill., or the Secretary, Dr. C. O. Molander, Director, Dept. of Physical Medicine, Michael Reese Hospital, Chicago 16, Ill.

THE PROGRAM

THURSDAY, FEBRUARY 26, 1948

10:00-10:30 Registration. Vaughan Unit Theatre.

10:30-10:45 Address of Welcome. K. A. Carroll, M.D., Manager, Veterans Administration Hospital, Hines, Illinois.

10:45-11:00 Orientation: Louis B. Newman, M.D., Chief, Physical Medicine Rehabilitation Service, Veterans Administration Hospital, Hines, Illinois.

SEMINAR ON SPINAL CORD INJURIES

11:00-11:30 Neurosurgical Aspect. Loyal Davis, M.D., Professor of Surgery, Northwestern University Medical School.

11:30-12:00 Neurological Aspect. Lewis J. Pollock, M.D., Professor of Nervous and Mental Diseases, Northwestern University Medical School.

12:00-12:30 Genito-Urinary Problems. Knowlton E. Barber, M.D., Assistant Professor of Urology, Northwestern University Medical School.

2:00- 2:30 Medical Management. H. Ivan Sippy, M.D., Assistant Professor of Medicine, Northwestern University Medical School.

2:30- 3:00 Orthopedric Problems. Leo F. Miller, M.D., Associate Bone and Joint Surgery, Northwestern University Medical School.

3:00- 3:30 Plastic Surgery. Joseph G. Kostrubala, M.D., Consultant, Plastic Surgery, Northwestern University Medical School.

3:30- 4:30 Physical Medicine Rehabilitation; Demonstration of Patients. Louis B. Newman, M.D., Chief, Physical Medicine Rehabilitation Service and Staff.

4:30- 5:00 Moving Pictures.

12:30- 2:00 Luncheon: Moving Pictures.

FRIDAY, FEBRUARY 27, 1948

10:00-12:30 Conducted Tours of the Physical Medicine Rehabilitation Activities at the Veterans Administration Hospital, Hines, Illinois.

12:30- 2:00 Luncheon: Moving Pictures.

2:00- 2:30 Physical Medicine in peripheral Vascular Lesions. Geza De Takats, M.D., Associate Professor of Surgery, University of Illinois, College of Medicine.

2:30- 3:00 Physical Medicine in Peripheral Nerve Injuries. Speaker to be announced.

3:00- 3:30 Physical Medicine in Fractures. Harold A. Sofield, M. D., Associate Professor, Bone and Joint Surgery, Northwestern University Medical School.

3:30- 4:00 Physical Medicine in Amputations. Fred W. Hark, M. D., Associate Professor of Orthopedics, University of Illinois, College of Medicine.

4:00- 4:30 Physical Medicine in Arthritis. Evan M. Barton, M.D., Assistant Professor of Medicine, University of Illinois, College of Medicine.

4:00- 5:00 Moving Pictures.

Luncheon can be served at a nominal cost at the hospital canteen. To reach the hospital take Garfield Park Elevated to Des Plaines Avenue station where a bus leaves for the hospital (Vaughan Unit).

Application For Space In The Scientific Exhibit

ILLINOIS STATE MEDICAL SOCIETY

Chicago, Illinois, May 10, 11, 12, 1948
Palmer House — Red Lacquer Room

Application is hereby made to the Committee on Scientific Exhibit for space for an exhibit

Title
(State exact title of exhibit suitable for the program and The Journal announcements)

Name of Exhibitor (s)

.....

Institution (s)

.....

City State

Please complete this blank and mail to Director of Exhibits:
John A. Mart, M.D. 700 North Michigan Avenue, Chicago 11

Original Articles

PULMONARY COMPLICATIONS DUE TO ENDOBRONCHIAL FOREIGN BODIES

PAUL H. HOLINGER, M.D., ALBERT H. ANDREWS, JR., M.D. AND GEORGE C. ANISON, M.D.
CHICAGO

The early literature of bronchoscopy and esophagoscopy deals almost exclusively with the problems encountered in the management of foreign bodies in the air and food passages. Acceptance of a greatly increased list of indications for bronchosopic procedures has so broadened the field of bronchoesophagology that problems of foreign body extraction have been relegated to a secondary role as other diagnostic and therapeutic phases of this field receive increasing attention. However, the pulmonary complications produced by foreign bodies are often so serious that it is timely to again stress the importance of foreign bodies as etiologic agents of extensive pulmonary disease.

This paper is based upon an analysis of a series of 1026 consecutive patients. Foreign bodies were removed from the hypopharynx, larynx, tracheo-bronchial tree, esophagus, or stomach by means of peroral endoscopy, or with the assistance of some peroral endoscopic procedure. The study does not include the patients with foreign bodies in the intestines nor the cases in which the foreign body was removed from the tonsil or hypopharynx by indirect means. Individual case reports are given only as illustrations of certain important diagnostic or therapeutic features, but generalizations regarding etiology, symptomatology and pathology may be made because the series is relatively large and includes all such cases seen over a period of eleven years in a children's hospital, a general hospital for charity patients, and a 500 bed private hospital.

From the Department of Laryngology, Rhinology and Otology, University of Illinois College of Medicine; the Children's Memorial Hospital; and St. Luke's Hospital, Chicago.

ETIOLOGY

The incidence of endoscopically removable foreign bodies as a disease entity is relatively small when considering the total admissions during the past eleven years to the three institutions mentioned. Nevertheless, foreign bodies were found to be responsible for a significant number of cases of obscure pulmonary pathology. The most superficial examination of the records demonstrates that they must be considered as a possible etiologic factor in patients of any age with obscure pulmonary disease.

Reference to the tables demonstrates that patients of all ages (one day to 84 years) may swallow or aspirate any type of foreign body. However, certain objects are found most frequently in specific age groups. Thus (Table 4), safety pins as foreign bodies are found most frequently in children 7 months to 2 years of age; peanuts in children 15 months to 4 years of age; coins in children 2 to 4 years; hardware in children 3 to 7 years, and chicken bones in adults 30 to 70 years of age. Other statistical data give the numbers of various types of foreign bodies in the series (Table 1), the site at which each foreign body was found (Table 2), and other factors concerned with age incidence (Tables 3 and 4).

Specific etiologic factors also may be noted from analysis of the statistics. As usual, carelessness is a constant etiologic factor. The fact that so many infants swallow or aspirate open safety pins which become lodged in the air and food

TABLE 1
Number and Percentage of Groups of Foreign Bodies in 1026 Consecutive Cases

Foreign Bodies	*Total Number*	*Percent*
Bones	212	20
Hardware and Metallic Objects	154	15
Safety Pins	122	11
Nuts	152	14
Coins	153	14
Vegetable Matter	77	7
Meat	92	9
Dental Objects	30	3
All Others	69	7
	1061	100

TABLE 2
Anatomic Location of Foreign Bodies in the Air and Food Passages

Anatomical Location	*Total Number*		*Percent*
Vallecula	5		1
Hypopharynx	66		6
Larynx	21		2
Trachea	35		3
Bronchi	318		29
Right Bronchus		211	
Left Bronchus		107	
Esophagus	604		56
Cervical Esophagus		436	
Thoracic Esophagus		118	
Cardiac Esophagus		50	
Stomach	27		3
TOTALS	1076*		100

*This includes the several locations of 50 multiple foreign bodies.

TABLE 3
Age distribution of Foreign Bodies in the Complete Series

Age	*Total*	*Percent*
Under One Year	86	9
From 1 to 2 Years	156	15
From 2 to 4 Years	238	23
From 4 to 14 Years	166	16
Adults	380	37
TOTALS	1026	100

TABLE 4
Age Distribution of the Most Commonly Encountered Foreign Bodies

Age Groups	*Bones*	*Safety Pins*	*Nuts*	*Coins*	*Meat*	*All Others*
Under One Year	1	53	2	11	0	19
From 1 to 2 Years	7	27	45	27	3	47
From 2 to 4 Years	7	18	72	56	1	84
From 4 to 14 Years	9	4	24	46	5	78
Adults	188	20	3	4	70	95
TOTALS	212	122	146	144	79	323

passages illustrates this point clearly. In only two instances in this series did it become necessary to remove closed safety pins; in one child the closed safety pin was one of the small "gold" type and had been aspirated and became imbedded in the right bronchus. In the other case, an infant had swallowed two large interlocked safety pins, and while they were free in the stomach, they were considered too long to pass through the turns of the duodenum and were removed endoscopically with biplane fluoroscopic assistance.

General anesthesia, alcoholism and unconsciousness from other causes are definite etiologic factors of foreign bodies. Dental objects such as insecure or partial bridges or loose teeth are the commonest in this group. While plates themselves are occasionally swallowed, the dental plate is more important in another manner. It is most frequently responsible for foreign bodies such as chicken bones becoming lodged in the esophagus since the person with a dental plate often is not able to feel the bone in his mouth until it reaches the soft palate or posterior pharyngeal wall after the act of swallowing has begun. In a great majority of teeth and dental crowns that were aspirated, the etiologic factor was dental extraction under gas anesthesia.

A subnormal mentality or psychopathic personality is likewise an etiologic factor in several instances. For example, one man forced a 4½ inch spike into his trachea and right bronchus. Another patient in an insane asylum swallowed or aspirated an open safety pin whenever she wished special attention.

PATHOLOGY

Many factors determine the pathological changes in the lung caused by foreign bodies. The type of foreign body, its location and sojurn, the age of the patient, and previous attempts at removal indicate a few of the variables. For the study of pulmonary complications, foreign bodies in the tracheo-bronchial tree may be divided into vegetable and non-vegetable with early and late pathologic changes. The vegetable foreign body, e.g. the peanut and the corn kernel, releases irritating unsaturated fatty acids which immediately set up a reaction, not only at the point of contact and the lung distal to it, but also throughout the tracheo-bronchial tree and the whole of the lung on one or both sides. The bronchial mucous

membrane becomes inflamed and edematous with the most marked changes at the site of the foreign body. Regardless of the degree of obstruction, the lung distally may show varying degrees of edema with patchy atelectasis, hemorrhage, and pneumonitis. Sub-glottic edema will occasionally supervene. If the obstruction is incomplete, moist rales and rhonchi may be heard, particularly over the obstructed lung segment. If the reaction is severe and generalized, these findings will be present in the whole of the lung on the same side or may even be noticed throughout both lungs.

Late complications of the foreign body of vegetable origin follow directly with the progress of the above changes. With the increased edema of the bronchial mucosa around the foreign body, obstruction becomes complete. The lung distal to the obstruction becomes atelectatic, infection follows, and the final result is extensive bronchiectasis or lung abscess.

The early pulmonary complications of the non-vegetable foreign body are almost entirely mechanical. The changes which follow depend upon the extent of obstruction and the shape of the foreign body. The irregular foreign body usually partially occludes one of the main or lobar bronchi. The first change noted is a partial bronchial obstruction resulting in a unilateral obstructive emphysema; the chest x-ray made during expiration records the following: the diaphragm is depressed on the involved side and the mediastinal structures are shifted away from the obstructed side. The smooth foreign body may become firmly lodged immediately upon entrance into the tracheo-bronchial tree. The lung distal to the obstruction soon becomes atelectatic. Complete occlusion of a main bronchus causes collapse of the lung distal to the occlusion with the upward displacement of the diaphragm, and a mediastinal shift towards the side of the obstruction. The bronchial mucous membrane shows few early changes at the site of the non-vegetable foreign body. Pointed objects may puncture the mucous membrane; slight inflammation and edema will be noticed at the site of the injury. The introduction of infected material on the foreign body is of doubtful importance in the pulmonary complications except in dental foreign bodies where oral sepsis seems to be responsible for the unusual severity of infections which follow aspiration of these objects.

The late complications of the non-vegetable foreign body are many and varied. The smooth, round foreign body may become firmly lodged causing a pressure necrosis of the bronchial mucous membrane. The irregular object more often causes areas of ulceration of the mucosa at the points of contact. Regardless of the extent of the obstruction, the lung distally will show inflammatory changes varying from suppurative bronchitis to bronchiectasis or lung abscess. Pneumothorax or mediastinal emphysema will occasionally occur following erosion or puncture of the bronchus or pleura. These complications may be caused by instrumentation during attempted removal. Infection of the mediastinal or pleural space frequently follows and the patient is acutely ill with a mediastinitis or empyema.

Since the purpose of this paper is to call attention to the pulmonary complications of foreign bodies, and thus to suggest this etiology when obscure lung disease is first seen, the individual complications are discussed separately. They are presented in the order of the degree of bronchial obstruction responsible for each.

Asthma: Asthma is rarely a complication of foreign bodies, but asthmatic breathing or wheezing is often described early in the foreign body history. Unilateral wheezing in a suspected asthmatic must always be considered as a possible foreign body or bronchial tumor. Occasionally, foreign bodies are bilateral; nut kernels have been the most common bilateral foreign bodies in this series although one adult, a bill poster, was found to have a tack in each main bronchus. They were responsible for his supposed asthma of 8 years' duration. When shown his chest x-rays he recalled the original aspiration-accident 8 years previously when he fell off a ladder with a mouthful of tacks.

Emphysema: Obstructive emphysema is caused by the rapid increase in intra-bronchial and intra-pulmonary pressure produced by foreign bodies which occlude the bronchus only on expiration. It was noted early in almost all the cases of peanuts in the bronchi. In some cases the tension becomes so great that air dissects outward under the visceral pleura and advances to the mediastinum. This tissue emphysema was observed in 2 cases; the emphysema in one ex-

tended throughout the mediastinum into the pericardium and advanced upward over the face, across the chest and down the arms. After removal of the foreign body, a peanut in the right bronchus, the process gradually subsided. The second case, also due to a peanut, had only slight crepitation about the neck on admission to the hospital, and while not as extensive as the first, responded promptly after removal of the peanut.

Pneumothorax: This complication occurred in three cases. In two, instrumentation prior to admission resulted in extreme tension pneumothorax requiring prompt and repeated aspiration of air from the pleural cavity with eventual closed drainage. They were due to sharp metallic foreign bodies, a nail and a screw. Both children recovered. The third case occurred during removal of a tooth from the right upper lobe bronchus. The degree of collapse was minimal and the air gradually absorbed without further complication. It might be of interest to note at this point that in 2 cases of foreign bodies in the left upper lobe bronchus a pneumothorax was artificially induced to permit a more direct approach to this bronchus. Collapsing the lung straightened the upper left lobe bronchus sufficiently to permit introduction of forceps under fluoroscopic guidance.

Atelectasis: Atelectasis follows the obstruction of any bronchus as the air distal to the obstruction is absorbed. As a diagnostic sign of bronchial obstruction, atelectasis is of greatest importance; however, its importance as a pulmonary complication of foreign bodies is due more to the secondary infection which follows than to the actual collapse of the lung itself.

Bronchiectasis and Lung Abscess: These complications, together with acute suppurative bronchitis, constituted the great majority of the pulmonary complications of this series of 1026 cases. Radio-opaque objects, e.g. teeth, screws, and nails were frequently found in patients when poor x-ray techniques had previously failed to demonstrate them. In other cases, no films had been made. Such foreign bodies, when present in the lung several years, months, or even in some cases only a few weeks, may produce extensive multiple lung abscesses or saccular bronchiectasis. Metallic objects were found and removed which had been present in the lung 3, 5, 8 12, 15 and even 35 years. Extensive bronchiectasis involving segments or entire lobes were associated with these objects and in most cases previous x-rays had failed to reveal the objects because extra density films were omitted. Productive cough, loss of weight, hemoptysis, clubbing of the fingers and repeated "pneumonias" were the usual symptoms. In a number of cases in adults, the foreign body had apparently been aspirated during childhood and the patient was unaware of its presence until it was demonstrated on the x-ray film.

Patients who developed lung abscesses following aspiration of a foreign body usually ran a more rapid and acute course than those with bronchiectasis. These abscesses were for the most part associated with vegetable foreign bodies such as corn, beans, various grass heads, twigs, and cockle-burrs. The abscesses due to dental objects, e.g., teeth, crowns, and dental bridges were less frequent, but were often associated with greater toxicity.

The therapy of the patients with bronchiectasis as well as those with lung abscesses was directed toward (1) removal of the obstructing foreign body to provide more adequate drainage, (2) chemotherapy, and (3) external surgical drainage, lobectomy or pneumonectomy as indicated when response to conservative procedures was not prompt or complete. There were two fatalities in this series due primarily to these complications. One four year old boy was admitted to the hospital acutely ill, with a history of "pneumonia" of two months' duration. Roentgen examinations revealed multiple lung abscesses on the right side; the hull of a kernel of corn was removed bronchoscopically from the right bronchus. Following an initial short period of improvement, progression of the suppurative process in the right lung necessitated external drainage. Death occurred following one of numerous surgical procedures 1½ years following the removal of the foreign body. The second patient, an adult, died of a metastatic brain abscess following a long standing lung abscess and bronchiectasis caused by a foreign body in the right bronchus.

Empyema: This was a relatively rare complication of intrabronchial foreign bodies. When present, it was generally produced by a perforation due to an esophageal foreign body. In patients in whom empyema was found secondary to bronchial foreign bodies, it was generally as-

sociated with an extensive lung abscess or bronchiectasis or an overwhelming sepsis following the aspiration of a tooth. In several of the cases, the tooth was not visualized until after thorough drainage of the empyema. In patients in whom the presence of a foreign body in the bronchus is complicated by an empyema the removal of the foreign body is considered of secondary importance to the drainage of the empyema.

LARYNGEAL COMPLICATIONS

Laryngeal pathology due to tracheal or bronchial foreign bodies is such an important complication often associated directly with the pulmonary pathology that it requires thorough analysis. Numerous foreign bodies, such as peanuts and corn, produced an intense inflammatory reaction in the larynx as well as in the trachea and bronchi. Mechanically, some foreign bodies, such as nails, corsage pins, and other pointed objects, produced laryngeal edema because they were loose in the trachea and struck the inferior surfaces of the cords on each expiration and cough. In every case, such edema subsided after removal of the foreign body without further operative interference becoming necessary. Transitory edema of the larynx produced by instrumentation in removal or attempted removal of a tracheal or bronchial foreign body is likewise a definite type of laryngeal pathology associated with foreign body problems. Because of the emphasis which Jackson places upon this complication, his dictum was closely observed and the duration of each bronchoscopy was limited, dependent upon the age of the child and the diameter of the bronchoscope used. Consequently, while in numerous instances a mild degree of laryngeal edema occurred, producing hoarseness or slight transient dyspnea, in no instance in this series did dyspnea increase sufficiently to necessitate a tracheotomy. In four instances, however, tracheotomies had been done prior to admission following previous attempts at removal of foreign bodies. In the first, an 18 month old child had been tracheotomized elsewhere before admission following several bronchoscopic attempts at removal of a common pin from the left lower lobe bronchus. The second was identical to that of the first in that the foreign body was a common pin and unsuccessful attempts at removal elsewhere had been followed by a tracheotomy before admission. This child was one year of age. The third child, also one year of age, had been tracheotomized when chips of enamel he had picked off the floor had become lodged in the larynx and right bronchus. The fourth, a child of 3 years of age, was admitted to the hospital dyspneic and cyanotic due to both a tension pneumothorax and an acute laryngeal edema. Two previous attempts to remove a nail from the right lower lobe bronchus had been followed by a perforation of the pleura and by the laryngeal obstruction. Relief was only partial following release of the intrapleural tension and a tracheotomy soon became necessary. No attempt at removal of the nail was made for several weeks until the pleural and laryngeal complications subsided. All four chidren recovered.

SUMMARY AND CONCLUSIONS

In a series of 1026 consecutive cases of foreign bodies in the air and food passages, 353 or 32 percent were found and removed from the tracheo-bronchial tree. Pulmonary complications depended upon the location, sojurn, and character of the foreign body. Vegetable objects (peanuts, corn, beans, twigs, grass heads, etc.) produced the most severe acute inflammatory processes and were often overlooked as the cause of the disease. Metallic objects (tacks, screws, parts of toys, safety pins and common pins) were not as frequently the cause of severe acute pulmonary infections, but were more often responsible for extensive bronchiectasis, severe hemoptysis, empyema and pneumothorax when they remained present in the bronchi for weeks, months or years. Cases of pulmonary complications due to overlooked foreign bodies were presented to stress the importance of obtaining an accurate history in any obscure lung disease. The individual complications discussed consisted of "asthma", emphysema, pneumothorax, atelectasis, bronchiectasis, lung abscess, and empyema. Two fatalities (0.6%) in the 353 cases of bronchial foreign bodies are recorded. One was due to a metastatic brain abscess from a bronchiectasis caused by a foreign body. The second occurred following one of a number of surgical procedures carried out for drainage of multiple abscesses secondary to a kernel of corn present in the bronchus two months.

Thus, to establish the diagnosis of a foreign body in the air or food passages one must carefully evaluate the history, the symptomatology,

the physical findings and the Roentgen studies, and then confirm or deny the diagnosis by the endoscopic examination. A positive history of choking or gagging or the statement of the patient, no matter how young, that he has "swallowed" something, must never be ignored. Yet, no matter how strongly one relies upon a positive history to lead to a diagnosis of a foreign body, a negative history is valueless and misleading. A study of the symptomatology and physical findings aids in establishing the presence or absence of a foreign body, and often gives an accurate indication of its location. The x-ray examination follows, and this should not consist merely of the interpretation of one film. It should include a complete Roentgen-ray study of the patient with fluoroscopy, antero-posterior film, laterals, comparison of inspiration and expiration and extra density films.

Finally, the endoscopic procedure must be considered not only from the standpoint of therapy, i.e., removal of the foreign body, but also as a diagnostic procedure when the other examinations are inconclusive. Finding a peanut in the bronchus of a child who has a negative foreign body history but an "unresolved pneumonia" of unknown etiology is a common example of the diagnostic phase of the endoscopic procedure in foreign body work. To find and remove the object early will avoid the many serious complications herein described.

MENINGOCOCCIC INFECTIONS

WALTER M. WHITAKER, M.D., F.A.A.P.
QUINCY

With the advent of chemotherapy, alteration in the clinical course, mortality rates, and complications of meningococcic infections stands out as one of the paramount contributions of medical science during World War II. It is the purpose of this paper to bring to you, briefly, our present-day conceptions of the various clinical manifestations with a resumé of modern therapy instituted in the treatment and control of meningococcic infections, as personally observed while in the Naval Service at the U. S. Naval Hospital, Farragut, Idaho in 1943-44. It was my personal responsibility to observe and treat 116 cases of meningococcic infections.

Read before Section on Medicine of Illinois State Medical Society, Chicago, May 13, 1947.

Many of our present day concepts of the processes involved in the pathogenesis of meningococcic infections originated in World War I but have failed to receive wide recognition. During an epidemic at an Army Post in 1918, Herrick[1] noted that 45 per cent of the cases could be recognized in the blood stream or premeningeal stage, and that a small percentage of such cases failed to progress to definite meningeal involvement. In 1899, Gwyn[2] isolated the meningococcus from the blood stream and the knee joint fluid of a patient who had meningitis, indicating the importance of blood stream infection in the disease. Today, we have come to regard infection resulting from the meningococcus as divided into three definite phases, with certain clinical signs and symptoms peculiar to each stage. These three phases are (1) the nasopharyngeal, (2) the septicemic or invasive, and (3) the meningeal. Recent authors would also include in some cases, a myocarditic or endocarditic phase. Failure to recognize the signs and symptoms of the septicemic phase has been a major factor in the delayed treatment and the subsequent high mortality of these infections.

Nasopharyngeal Phase. — In the nasopharyngeal phase, there are usually no signs or symptoms and the meningococcus cannot be detected except by routine swabbing and culture. The majority of individuals are spared more extensive invasion. Positive carrier rates will vary in different epidemics, but during an epidemic may average 80 per cent of apparently healthy troops[3]. Carrier rates in the general population of over 20-30 per cent are highly indicative of an impending epidemic. The usual carrier rate in non-epidemic periods is about 2-10 per cent[4]. Many factors are apparently operative as to whether an individual becomes a healthy carrier or succumbs to the further invasion of the meningococcus. The presence of nasopharyngeal infection with resultant breakdown of local phagocytic barriers in the nose and throat membranes seems to play a major role in the capacity of the organism to enter the blood stream. Factors in the training life of the individual, which tend to alter or lessen his host resistance, such as physical training with attendant fatigue, inoculations, the development of a more virulent strain of organ-

isms in the nasopharynx, plus the development of a high incidence rate of carriers, may all be operative in allowing the development of the second or septicemic phase.

Invasive or Septemic Phase. — This phase represents a definite clinical entity, easy of recognition in most cases. Meningococcic infection is essentially a generalized sepsis with the infection entering the blood stream via the nasopharynx. Patients sometimes die in the second phase from a fulminating, overwhelming sepsis, but they may recover quickly, with or without treatment, or more commonly, progress rapidly to the meningeal phase. In some cases, however, there may exist for weeks, a syndrome manifested by chronic fever, chills, sweats, and arthralgia finally proven, by positive blood culture, to be a chronic meningococcemia. Most of the fatalities that occur from meningococcic infections, occur as a result of overwhelming sepsis, which may terminate before any evidence of the disease is discovered in the meninges or the spinal fluid. Delay in instituting treatment leads to increased mortality, but it must be said, in all fairness to medical personnel, that even when one's attention is focused on the likelihood of fulminant cases of meningococcic infection and early treatment instituted, there will still be fatalities, in spite of prompt recognition and treatment. This clinical condition of overwhelming, fulminant meningococcemia, associated with a rapidly developing petechial and purpuric eruption with adrenal hemorrhages noted at autopsy, has been recognized in medical circles as the Waterhouse-Friderichson syndrome, which will be discussed in more detail later. In those instances of rapid fatality, the basic premise of virulence of organism versus immunity of host is apparently so altered that even prompt therapy is often futile.

Recognized cases of meningococcemia are becoming much more prevalent and constitute an important group in any large series of cases. In 112 cases of meningococcic infections observed at Fort Bragg, North Carolina, 32 cases were noted without meningitis by Daniels, Soloman, and Jaquette[5]. Hill and Lever[6] observed 13 cases of meningococcemia alone in a series of 68 meningococcic infections.

Of the 116 cases herein discussed, 25 were considered instances of definite meningococcemia. Analysis of the major clinical findings in these 25 cases revealed a history of accompanying or preceding upper respiratory infection during the previous 7-10 days in 76 per cent. Fever, chills, headache, and vomiting were almost universally present. In fact, one may state that the five manifestations of fever, chills, headache, rash, and arthralgia, developing suddenly in an individual with the history of a recent upper respiratory infection, should immediately suggest a meningococcic infection with blood stream invasion, especially in the presence of a known epidemic.

Although all five of the afore-mentioned findings may be present at the onset of any acute infection, the characteristic rash is, of itself, almost pathognomonic of infection by the meningococcus. This rash was observed in all 25 cases with meningococcemia. I think one can consider the skin manifestations of meningococcemia as occurring in three types, one or all of which may be observed at some time in the same patient. The least common form of the rash in my cases consisted of discreet, pinkish, macular spots, varying from pinhead size to ¼ inch in diameter, fading easily on pressure and usually seen on the lower abdomen, chest, forearms, and distal portions of the lower extremities. These lesions may be very evanescent and slightly tender. They are somewhat similar in color to rose spots, but are usually much larger and more numerous.

The second and most common type of lesion noted was the discreet, reddish purple, petechial spot, not fading on pressure, not tender, and varying in number from a few spots to many hundred. These petechial lesions are best observed about the ankles, wrists, flexor surface of the forearms, and on the abdomen, and vary in size from 1-3 mm. They may appear on the mucous or serous membranes. They usually appear during the first 24 hours of the blood stream invasion and tend to gradually fade in the course of a few days, leaving only faint discoloration of the skin for a short time.

The third type of rash is seen most characteristically in cases of severe or overwhelming sepsis, and consists of purpuric and ecchymotic spots (suggillations) of various sizes, purplish in color, which may at times become confluent, involving areas several inches in diameter and indicative of the purpura fulminans associated

with the Waterhouse-Friderichson syndrome. The intensity and severity of the rash in the cases observed seems to parallel the gravity of the infection. Obviously, cases of a severe type may occur with little or no rash, but in my experience these cases have been predominantly meningeal and not septicemic. Observations of the various types of skin lesions associated with meningococcic infection leads one to believe that these lesions are as diagnostic for such infections as the rashes of scarlet fever, measles, chicken pox, or other exanthemata are specific for those diseases. Lack of stressing the importance of skin lesions in diagnosis has probably been due to a varying incidence of these lesions in different epidemics and to the possible lessened frequency of skin lesions in sporadic cases. Rolleston[7] noted that 59 per cent of the cases in World War I showed skin lesions, but Borovsky recorded only 6.7 per cent showing skin lesions during the Chicago epidemic of 1930. Strong[8] observed petechiae in 82 per cent of 92 cases. While the various types of rashes in meningococcemia may be confused with measles, Rocky Mountain spotted fever, typhus fever, typhoid fever, or purpura simplex, the history and other clinical findings presented will usually serve to easily differentiate these diseases. The diagnosis can and must be arrived at early in the disease, by the mode of onset and type of rash, even before the spinal fluid shows any abnormalities and before the blood culture may be ascertained as positive. Negative spinal fluid may become positive in a few hours and waiting to establish diagnosis and institute therapy may be disastrous. Undoubtedly, our ability to diagnose meningococcemia will vary in different epidemics, since in many instances it merges quickly into the more commonly recognized stage of meningeal involvement. Ability to diagnose meningococcemia depends upon the opportunity to observe cases early, the awareness of the significance of the early signs and symptoms, the virulence of the infecting strain of meningococcus as related to the host's natural immunity, and lastly, to the resistance offered at the meningeal barrier which, if very slight, is likely to allow the development of an early meningitis.

Monthly Incidence. — The monthly incidence of cases revealed the highest peak during the winter and spring months with almost complete cessation during the summer months of July, August, and September. This curve of incidence directly paralleled the occurrence of respiratory infection, as would be expected. March 1944 afforded only one hospital admission for meningococcic infection as compared to 22 in March 1943. This marked decrease was attributed directly to the widespread sulfa-prophylaxis program instituted in the late fall of 1943, which led to a very diminished carrier rate among the personnel.

Severity of Cases. — Attempts were made in this series of cases to gradate the patient's clinical severity, using as criteria the mental state on admission, intensity of rash, evidence of spinal fluid involvement, and fever.

Grade I included patients with evidence of skin lesions of average intensity associated with a clear mental state and no abnormal spinal fluid findings. Of course, this group comprised most meningococcemias, except those of the overwhelming septic type. Grade II comprised those patients with average intensity of skin lesions, associated with positive spinal fluid evidence of a purulent meningitis and a dulled or confused sensorium. Grade III comprised those patients with moderately severe rashes associated with definite spinal fluid findings and more marked mental changes than those of grade II. None were observed in this series. Grade IV comprised those patients with severe rash of purpura fulminans, associated with evidence of overwhelming sepsis, often leading to rapid death in coma and shock. Four patients were observed in this category. Two recovered and two died within a few hours after admission. In the entire group of 25 patients with meningococcemia, these two deaths represented our mortality. Both patients had intense petechial and purpuric skin lesions, low blood pressure, and coma, temperatures of 105 and 107, respectively, occurring terminally. Autopsy in each instance revealed adrenal lesions consisting of extensive hemorrhagic necrosis. Two other patients, apparently of equal clinical severity, survived.

Menincococcemia Types. — As has already been mentioned, of the 25 cases placed in the category of meningococcemia, 76 per cent had brief or accompanying upper respiratory infections. Headache, fever, chills, vomiting and rash were present in all cases. The rash was of

macular type in nine cases, while in four cases there was an intense petechial and purpuric eruption, typical of the Waterhouse-Friderichson syndrome. The majority of the cases showed the usual petechial rash already described. Three patients in this group of 25 cases had negative spinal fluids on admission, but developed pleocytosis of polymorphonuclear type, with organisms noted by smear and cell counts of 4,000 to 20,000 within 8-12 hours after a previous negative tap. Blood cultures were done routinely on admission, being positive in 36 per cent of this group. Doubt might be placed on the clinical diagnosis of the remaining cases in this series, which were not substantiated by positive bacteriologic evidence. However, the mode of onset, characteristics of the skin lesions and the presence of an epidemic together with the prompt response to sulfa drugs was considered sufficient to warrant the diagnosis. Particularly, was any doubt dispelled after observing the three patients just mentioned, two of whom had negative blood cultures and all showing negative spinal fluids on admission but with usual clinical signs and typical rash; then all proceeding to develop a positive spinal fluid in only a few hours. This serves to again stress the great significance of the diagnostic rash in the septicemic phase of meningococcic infections.

Meningitic Types. — In the 91 patients exhibiting meningitis, 67 per cent gave a history of acute upper respiratory infection, existing at the time of entry or during the preceding 7-10 days. Symptoms of fever, chills, and vomiting, and headache were practically universal. Seventy-eight per cent showed definite skin lesions, which were of petechial character in almost all instances. A history of joint aches or pains occurred in 57 per cent, but the occurrence of actual swollen tender joints on admission or during the course of illness was quite low. Herpes occurred in the meningococcemias in only five cases or 20 per cent, but 32 per cent of the meningitis cases exhibited herpes. Leukocyte counts on admission ranged from 7,800 to 55,400, averaging about 27,500. However, in one instance of Grade III severity with a positive blood culture, a white count was only 9,750. Spinal fluid counts ranged from 30 cells to 83,000 in one who expired untreated. The highest cell count in a recovered patient was 53,600. Spinal punctures were not repeated after the initial tap except in rare instances, to denote the progress of the disease, particularly as regards incidence of organisms, for relief of severe headache, and as a routine measure at the end of two weeks, prior to release from isolation. In view of the uniform normalcy of the fluid at the end of two weeks, it is believed that this final tap was often unnecessary. The spinal fluid was positive for gram-negative diplococci in 68 cases. In 21 cases, no organisms were found, either by blood culture or by spinal fluid examination. Cytology of the spinal fluid, presence of the typical rash and symptoms, with no clinical evidence of any other bacteriologic type of purulent meningitis, and the presence of an epidemic were deemed sufficient proof of true meningococcic infection.

Treatment. — In no other acute bacterial infection has chemotherapy produced more striking results than in the field of meningococcic infections. In the last war about 6,000 cases of such infections were reported by this country with a mortality rate of 40 per cent. In the present war, the average mortality rate was from 3-5 per cent in the majority of series reported. Not only has there been a tremendous reduction in mortality rates, but the entire clinical course of the disease has been altered, as evidenced by shortening of the period of active infection, briefing convalescent time, and the almost complete freedom from distressing complications or relapses. Relapses occurred in World War I in about 50 per cent of the cases, but are very rare now. True recurrences of the disease are also exceedingly rare, but they may occur many months after the original infection. It must be borne in mind that in dealing with military personnel, we were dealing largely with the age group of 18-25 years of age when the chances for recovery were most favorable, regardless of the treatment used. In my series of cases, we had the opportunity to observe the effect of various sulfa drugs on meningococcic infections. Opportunity was also given to observe the combined effect of antitoxin and chemotherapy. Because of the frequency of serum reactions, but not of an alarming nature, and the many reports of good results from chemotherapy alone, the use of serum was discontinued with no preceptible changes in the therapeutic results. As regards therapy for the meningococcemia cases, most of whom were fully conscious and able to take medication orally, the

plan of treatment was to administer a sulfa drug in dosages of 1½-2 grains per body weight for 24 hours, combining it with a clysis of sulfa drugs if vomiting or dehydration was present. Fluids by mouth or parenterally, sufficient to secure 1200-1500 cc. of urinary output daily, were given. Usually 12-15 gms. of a sulfa drug were administered in the first 24 hours in these cases and reduced to 8 gms. daily until the temperature remained normal for 2-3 days. The dosage was then tapered down gradually, but was usually maintained at 4-6 gms. daily for 10-14 days.

Of the meningococcemia cases of Grade I severity, 11 responded promptly to oral sulfadiazine alone, three to oral sulfadiazine and parenteral sodium sulfadiazine, two cases to oral sulfadiazine and sulfanilamide by clyses. Three cases of Grade II severity responded to oral sulfadiazine and parenteral sodium sulfadiazine and antitoxin intravenously. Two cases of Grade IV severity died, one two hours after admission with no specific therapy and one case died eight hours after admission. These were both examples of the Waterhouse-Friderichson syndrome. Two cases of similar nature recovered with oral sulfadiazine and parenteral sodium sulfadiazine, and antitixin intravenously plus plasma, adrenal cortical extract, and intravenous glucose.

Therapy for the cases of true meningitis was also varied, but consisted fundamentally of sodium sulfadiazine intravenously with clyses of sodium sulfadiazine, followed by oral sulfadiazine as soon as the patient was able to tolerate the drug. Antitoxin, plus the chemotherapy, was used in a total of 51 cases in the series with no appreciable alteration in clinical course or mortality rates as compared to chemotherapy alone. Our routine for the diagnosis and treatment of meningococcic infections was finally standardized as follows: (1) Immediate spinal tap with examination of the fluid for white cells, smear, and culture. Sugar estimation was advised. (2) Spinal tap was repeated in 8-10 hours if originally negative, and the petechial rash or meningeal signs persisted. (3) Routine blood culture on examination before any therapy was given. (4) Immediate intravenous administration of sodium sulfadiazine, 5 gms. in 100-200 cc. of distilled water without awaiting bacterial confirmation of the disease. (5) If the patient was unconscious, vomiting, or had a severe rash the intravenous sulfadiazine was supplemented by clyses of the same drug, 5 gms. (.5%) in 1,000 cc. of Hartman's solution. The clyses was repeated every 8-10 hours for the first 24 hours. Total sulfa dosage was based on at least 2½-3 grains per pound body weight in 24 hours. (6) The intravenous sulfadiazine was not repeated after the initial dose. A blood level of 15-20 mgm. was easily maintained by daily clyses until the patient could tolerate the drug orally. (7) Sulfa therapy was continued for 10-12 days in gradually diminishing doses after the temperature had become normal. (8) Close observation of daily urinary output was maintained, securing an output of 1200-1500 cc. daily. Complete blood counts were done at least twice weekly, and blood pressure was taken every few hours in patients with severe rashes. (9) Sodium luminal was given by hypodermic as needed for restlessness or headache. (10) The patient was watched carefully for bladder distension. (11) Spinal tap was repeated on the 14th hospital day, and the patient released from isolation after two negative nose and throat cultures were secured.

This routine was carried out in practically every case in this series during the last 6-7 months that the study was made. Adequate sulfa levels were reached easily and showed values of 18-20 mgm. per 100 cc. after 24 hours. A blood level of 40 mgm. was reached on one occasion without any ill effects. Perhaps equally good results could be obtained from lower levels but in view of the known individual variations in rapidity of excretion, with no serious ill effects noted from these levels, plus the general acceptance of the need of intensive treatment, it would seem that the results of such treatment warrant its continued usage.

Specific antitoxin seems to occupy no favored place in the treatment of meningococcic infections. The rare cases known to be sulfa resistant or instances in which the Waterhouse-Friderichson syndrome is evident, seems to be the only cases in which its use might be indicated.

Complications. — Complications were notoriously infrequent and nonimportant as compared to those in the days before chemotherapy. Arthritis occurred in five patients, cranial nerve defects occurred in two patients, affecting the seventh nerve in one instance and the sixth in another, both of which were very transitory.

Aphasia occurred in one case, the patient being unconscious for three days with a cell count of 53,600. He was discharged well after three months. Twelve patients required catheterization. Reactions from the antitoxin occurred in 27 instances. Reactions from the sulfa drug were few, four patients developed rash, three exhibited hematuria and two showed bone marrow depression of white cells.

Mortality Rates. —There were five deaths in this entire series of 116 cases, a total mortality rate of 4.31 per cent. None of the treated cases of meningococcemia died, but two cases died within 24 hours untreated. Of the 91 cases of meningitis, two of the treated cases died and one died untreated. It is felt that deaths occurring within 24 hours should be considered as having occurred too early to note the effect of any therapy. If these cases are excluded, then only two deaths occurred in patients treated over 24 hours, resulting in a corrected mortality rate of 1.72 per cent for all treated meningococcic infections. Of the two fatal cases afforded intensive treatment, one resulted at the end of 24 hours in a patient ill for one month with acute rheumatic fever, who suddenly developed a Waterhouse-Friderichson syndrome. The other fatality occurred in a patient treated for three days, who at autopsy showed an extensive suppurative frontal sinusitis with extension into the dura. The existence of this suppurative focus with direct continuity with the intracranial cavity was capable of affording too overwhelming an infection for cure. The third fatal case of meningitis was a patient who received no therapy whatsoever, having been admitted as a catarrhal fever, and the diagnosis not being suspected until after death. Fatalities in the two cases of meningococcemia were examples of the Waterhouse-Friderichson syndrome confirmed at autopsy with death occurring two and eight hours, respectively, after admission.

Penicillin Versus Sulfa. — Considerable discussion has arisen relative to the comparative merits of penicillin and sulfa drugs in the treatment of meningococcic infections. Most every investigator is agreed that penicillin, when used extrathecally only, penetrates into the spinal fluid too irregularly and in concentrations too small to be reliable. If one is dealing with a meningococcemia alone, penicillin may be quite successful, but it has several disadvantages as compared to sulfa for the therapy of meningitis. First, the necessity of frequent lumbar taps for intrathecal therapy, secondly, the lack of proper distribution through the subarachnoid space, even after intrathecal therapy, tending to allow formation of adhesions and pocketing. Sulfa drugs are distributed rapidly throughout the fluid and this probably explains the more favorable clinical and bacteriological response to sulfa. Thirdly, positive nose and throat cultures are observed often with penicillin, even after several days' treatment, while cultures become negative in a few hours on sulfa therapy. Fourthly, sometimes strains of meningococci are known to be resistant to penicillin, and lastly, it is known that, experimentally, 10 mgm. of sulfadiazine is equivalent to 7,200,000 units of penicillin, in the protection of mice against meningococcic infections.

From the foregoing, plus the excellent therapeutic results obtained with sulfa therapy alone, it is believed that sulfa therapy is the choice in the treatment of practically all cases of meningococcic infections. The rare cases that develop or already show an existing renal insufficiency, or the patient who is known to have had previous sulfa sensitivity, or cases exhibiting a probable Waterhouse-Friderichson syndrome, or those cases in which no favorable response to sulfa occurs after full dosage, are I believe, the only instances in which one would prefer penicillin to sulfa. While it is true that penicillin administered systemically in meningitic cases will penetrate into the subarachnoid space and often result in cure, it does so in too irregular a fashion to be dependable. Intra-spinal or intra-cisternal administration of penicillin is necessary. There is no rational reason for not combining these drugs. Suppurative meningitis, other than meningococcal, is such a serious disease that the combined use of all available treatment is justified.

Waterhouse-Friderichson Syndrome. — The essential diagnostic points of this syndrome and the absolute need for rapid intensive therapy, if patients are to survive, should be emphasized. This syndrome, characterized as the meningococcal-adrenal syndrome, exhibits the three cardinal manifestations of fulminating septicemia, massive purpura, and bilateral adrenal hemorrhage, and was originally believed to occur primarily in

children under the age of two years. Any large series of cases seen in military service where we were dealing with young adults, revealed about 4-5 per cent of such cases. The syndrome usually manifests itself in a child of two years of age with sudden onset of vomiting, irritability, restlessness, and fever, and often diarrhea with abdominal pain. The child has been entirely well previously. There is the rapid development of petechial lesions, progressing to widespread purpura associated with a striking mottled type of cyanosis, low blood pressure, rapid respirations, imperceptible pulse, and often death within 24 hours. There are probably two syndromes, one, the acute adrenal syndrome, that may be reversible, with the main lesion in the adrenals, and secondly, the mixed or encephalitic adrenal syndrome, with lesions in the adrenals and the brain tissues. In the pure adrenal syndrome, the individual remains totally conscious until death, and has an air hunger, while in the encephalitis variety, coma, and rapid stertorous breathing develops. There were only about 12-15 reported recoveries in January 1945, but more cases are appearing in the literature. About 150 or 160 cases have been reported. No cases have recovered who exhibited the encephalitic symptoms. Spinal fluid is often negative, the individual not living long enough for the fluid to become positive but the blood culture or serum from purpuric lesions will usually be positive. The essential pathology has been observed in the adrenal glands in newborns, and trauma, asphyxia, and hereditary syphilis may produce a similar syndrome, while in older children it may be seen in scarlet fever, diphtheria, and pneumonia. The exact cause of the adrenal hemorrhage is not known, but it is believed to be the result of toxic effects on the thin vessel walls increasing their permeability. Hemorrhage occurs mainly in the medullary portions of the adrenals, then into the cortex by contiguity.

Treatment must be vigorous and immediate if lives are to be saved. Any patient, especially a young child, who develops spontaneously, or in the course of a contagious disease, a purpuric eruption with a profound shock and hyperpyrexia, should be considered as manifesting this syndrome. Treatment is directed toward combating shock by heat, stimulants, and plasma, toxemia by specific antitoxin, bacteremia by intravenous sulfa and penicillin, and adrenal cortical extract to replace hormonal loss. Death in the short lived cases is probably due to an overwhelming toxemia, causing profound shock and in cases that survive longer, to hepatorenal failure. We know that the adrenal cortex plays a part in maintaining renal function and body resistance to toxic agents. Damage by hemorrhage results in failure of adrenal function and increased sensitivity to the meningococcus toxin.

SUMMARY

(1) Meningococcic infections are primarily septicemic, and meningitis is only one manifestation. (2) The cardinal manifestations of fever, chills, headache, characteristic rash and arthalgia, in the presence of an epidemic require early institution of treatment, while awaiting laboratory confirmation. Failure to recognize meningococcic infections in the septicemic phase will lead to unnecessary deaths. (3) The mortality rate seems to parallel the intensity and severity of the skin lesions. (4) Evidence of adrenal damage with vascular failure must be carefully watched for, particularly in patients with extreme skin manifestations of the purpura fulminans or intense petechial types. Prognosis in such cases is always grave but not necessarily so if early intensive treatment is instituted. (5) A total mortality rate of 1.72% in cases treated at least 24 hours is indicative of the tremendous advance in therapy in this disease as compared to the last war. (6) There is no evidence to substantiate the value of routine employment of antitoxin in treatment of these cases. (7) Early diagnosis with prompt institution of chemotherapy, preferably by the parenteral route, maintaining a high concentration of the drug in the blood and spinal fluid, leads to rapid control of the infection and ultimate recovery in over 98% of meningococcic infections. (8) A plea for more intensive observation and recognition of the septicemic phase of the disease, particularly as it relates to the Waterhouse-Friderichson syndrome is made.

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THE PRESENT STATUS OF PENICILLIN IN DERMATOLOGY — A RESUME'.

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The wide usefulness and efficacy combined with its low toxicity have given penicillin the status of one of the most important drugs in modern medical practice. The dermatologist and syphilologist have been as enthusiastic as the general clinician over the favorable reports of and experiences with its action in combating disease. No drug in our time has been so thoroughly studied in so short a period as penicillin, and the reward has been great.

The exigencies of the war were largely responsible for the impetus to research on penicillin and in fact the early experiences were almost limited to the armed forces, but today nearly all practitioners of medicine have in some measure become familiar with its power against numerous pathologic entities. It becomes necessary now, to definitely evaluate the drug as to distinct indications, dosage and limitations in the several fields of medical practice.

The results of the use of penicillin in certain cutaneous infections, as well as with certain phases of syphilis, have been impressive but the exact evaluation is still in a state of flux and the purpose of this paper is to set out pertinent facts concerning penicillin as we know them at this time. Syphilis because of its numerous cutaneous manifestations, is one of the comparatively few systemic diseases included in dermatology, and a brief discussion of the drug therapy will be incorporated in this report.

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From the original mold, known as *Penicillium notatum* and *P. chrysogenum,* up to this writing, four important fractions have been isolated — known as penicillins F; G; K; and X. Commercially, the products are a mixture of two or more of the four penicillins. They differ chemically in the radical attached to the basic penicillin molecule (empirically $C_{10}H_{13}O_4SN.R$), where R represents benzyl (CH_2) in G, and phydroxy-benzyl (CH_2OH) in X.

These fractions occur in varying amounts in the products of the different producers and depend on the strain of the mold, the method used in preparation and the method of purifying the drug. Most of them contain predominately G or a mixture of G and F.

It has become apparent that they vary greatly in effects. For example: Pencillin K is relatively inefficacious in the treatment of syphillis. This is related to the fact that it is rapidly inactivated in the body and the recovery in the urine is very low. Penicillins G, F and X are recovered up to ninety percent. The result of careful study of the various fractions reveals that penicillin X is most effective in streptococcus and pneumococcus infections, whereas G is better in syphilis. Incidentally, streptomycin, another new antibiotic, has spirocheticidal action, but it is believed that penicillin G is more than three thousand times as effective.

A number of salts of penicillin have been prepared and of these the sodium, potassium and calcium salts are at present available. All are extremely soluble in water and the yellowish color is due to the "impurities". The salts may be dissolved in saline or glucose solutions and they may be incorporated with such accessory drugs as 1% procaine without loss of potency. Just what therapeutic value the "impurities" in penicillin may have has not been determined.

The mode of action of the drug on organisms is not fully understood but it is unique in that little or no penicillin is used up. Therefore, it is believed that penicillin exerts an enzyme action on the organisms. The effect on bacteria apparently is that of inhibition of division ability. Experiments show that elongated and/or angular forms develop before complete dissolution of spirochetes in vitro. Furthermore, penicillin appears to be effective only against rapidly multiplying organisms and relatively inactive against

them in the resting phase. Later on local multiplications of organisms may begin again with new lesions which may be modified by the allergic sensitization of the host. Under these circumstances penicillin might again become effective.

Some believe that an extended administration of penicillin is desirable in order to hold in check the few organisms which may be in a relative resting phase until they can be neutralized by the defensive mechanisms of the body.

New methods of treatment appear from day to day but those in most common usage include ointments, suppositories, wet dressings, solutions, the salts in powder form, spray, ingestion, inhalation and injection. The latter includes intravenous, intramuscular subcutaneous and intraspinal (either intermittently or by continuous drip). The injection may be in a water, saline or glucose solution, or in a combination of oil and beeswax (POB). Regional injection is the latest method with the needle inserted at the site of the infection. The advantage of this method in local infections is the higher concentration of the drug where it is most needed. It should be pointed out that metals may not be incorporated with penicillin and also that penicillin in oil and beeswax must be kept thoroughly dry as moisture or metals inactivate the penicillin in this form.

The unit of the drug, or the Oxford Unit, is that amount which is equal in activity (against the standard strain of staphylococcus aureus) to 0.6 micrograms of the International Standard. (Pure sodium penicillin G). In other words, 1,000 units is equivalent to .6 milligrams of sodium penicillin G. The unit varies somewhat in the ampules and contains anywhere from 85,000 to 160,000 units. The dose in aqueous solution may vary from 20,000 to 100,000 units per injection and there is no apparent advantage in exceeding the recognized dosage as it simply is a waste of the drug. However, the dose in pencillin in oil and beeswax (POB) may reach 600,000 units in one intragluteal (without massage) injection given once a day, preferably during the late afternoon to provide a higher concentration in the blood during the resting hours, at which time it is more slowly absorbed and excreted.

Oral administration has not been too successful thus far because of the partial destruction of the drug by the gastric juice and due to the relatively poor absorption of it through the intestine. About five times as much penicillin is required to produce the same blood level as by the intramuscular route. However, the troches dissolved in the mouth, have proven a valuable adjunct in Vincent's infection.

Physicians in the military and naval service marveled at the quick and satisfactory phenomena in penicillin treatment of cutaneous infections, which were much more common than in civil life. Especially in impetigo, did they observe radical improvement over familiar methods. The results of such mass experiment now assure the civilian dermatologist that he may promise many of his adolescent victims of this disfiguring disorder that one or two days' treatment may clear the blemishes from the face and they may not need miss one day of school.

In general, diseases caused by Gram positive cocci and bacilli and Gram negative diplococci, as well as certain spirochetes, respond well to penicillin therapy. Skin disorders that have proven amenable to pencillin treatment, and my own experience bears out much of the story, include the following:

Abcess
Actinomycosis
Anthrax
Carbuncles
Cellulitis
Coccogenic sycosis
Ecthyma
Erysipelas
Erysipeloid of Rosenbach
Folliculitis
Furunculosis
Hidradenitis suppurativa
Infectious eczematoid dermatitis
Impetigo
Keratodermia blennorrhagicum
Paronychia
Pyoderma gangrenosum
Syphilis
Ulcers (infected)
Vincent's angina
Yaws
Secondary infections in:
Dermatitis venenata
Kerion
Mycosis fungoides

Unsatisfactory results have followed the treatment with penicillin of the following:

Acne vulgaris (except inapredominant coccus infection)
Chancroid
Dermatomyositis
Eczema
Granuloma inguinale
Lupus erythematosus
Lymphogranuloma venereum
Pemphigus vulgaris
Psoriasis

At this point, it might be well to present some of the writer's own personal experiences

with penicillin therapy and especially POB in dermatological practice.

Penicillin has been a most effective agent in the treatment of various dermatological infections that have come to my attention. To illustrate, a group of 30 case histories of patients who have received penicillin were taken out of the office files for tabulation and evaluation.

This study summarizes the records and observations of a rather typical group encountered in my private practice. (See Table 1.) It pretends to no outstanding variation from similar studies of the service groups but is representative of a cross section of civil life and without benefit of hospitalization, except in two cases. It will be especially noted that with the exception of 6 cases all received POB of the amorphous type and prepared according to the Romansky formula. The results were generally good with no observed serious reactions except one case of giant hives at the point of injection. Two cases were of especial interest, the first because of the excellent results in a case of severe Vincent's infection, and the second as it introduces the new method of using pencillin in oil and beeswax (POB) — namely regional injection.

The group consisted of 20 males and 10 females, one of the latter being a Negro woman. The ages ranged from two years to fifty-three years and the occupations of the adults were varied. Injections of POB were given once a day in all patients receiving this particular treatment. Only one patient proved sensitive to penicillin. This was No. 10, who developed giant hives and the penicillin treatment was discontinued.

Case No. 11 the patient had dermatitis venenata with impetigo and discontinued treatment. Case No. 14 had a recurrence of the ecthyma three months after dismissal. No. 21 had concomitant folliculitis of the scalp. No. 22 was the Negro woman, who had an open linear abscess of the perineum. This called for drainage and wet dressings, with the regional POB.

In case No. 23, the lesion returned. No. 25 had a nose infection. Patient No. 26 had eczema of the feet and No. 27 had eczema of the hands. No. 28 was hospitalized with a severe infection of the ears associated with a chronic eczema.

Case No. 30, a girl aged 12, was hospitalized with Vincent's infection. She was unable to take any food except liquids, could not speak and was able to open her mouth only slightly and with great pain. After one day of treatment, the mouth could be opened about 50% of normal opening and on the fourth day she could take soft food. All pain had disappeared by the fifth day and three days later she was discharged as cured.

Case No. 18, a man aged 30, had a carbuncle on the forearm 5 cms in diameter, raised about 2 cms, and had two openings. The needle was inserted on the medial side of the lesion, outside the area of induration, with the point reaching the center of the mass and 75,000 units of POB were injected. Pain in the lesion disappeared in three hours, and the patient worked that day using the arm, but a moderate general soreness developed through the arm which disappeared the second day. On the fourth day, a small incision was made in center of the lesion to facilitate the expulsion of pus and products of liquefication. On the fifth day the lesion was flat and showed only a slight induration. No other supportive treatment was given in this case.

The army and navy had a rare opportunity for mass research. They found, according to published reports, that with intramuscular injections of calcium penicillin in peanut oil and beeswax (POB), once or twice a day, results were as satisfactory as those obtained by the multiple injections of the drug in aqueous solution. The combination POB is used to slow elimination and increase absorption. Appreciable blood levels have been shown to be maintained for 24 hours with this treatment.

Effective penicillin blood levels have been placed at 20 units percent or (0.20 units per cc of blood) for most infections but may be exceeded by the continuous intravenous drip of the aqueous solutions in very severe infections.

A new adjuvant to further maintain higher blood levels has been found in the drug caronamide. (4'-carboxyphenylmethanesulfonanilide) It delays the tubular excretion of the kidney specifically for penicillin and thereby enhances the blood levels 2 to 7 times over the normal. Doses of 2.0 to 4.0 gms. are given at 4 hour intervals during the time of penicillin therapy. By the addition of this drug, penicillin may be given less frequently and still maintain adequate blood levels.

According to one study, penicillin-resistant

TABLE 1

Case No.	Duration	Dosage (units)	No. of Treatments	Results
		IMPETIGO CONTAGIOSA		
1	3 days	POB 300,000	1 gluteal inj.	Cleared in 24 hrs.
2	7 days	POB 150,000	2 gluteal inj.	Cleared in 3 days
3	5 wks.	POB 300,000	1 gluteal inj.	Cleared in 3 days
4	1 wk.	POB 150,000	2 gluteal inj.	Cleared in 3 days
5	4 days	POB 150,000	1 gluteal inj.	Cleared in 48 hrs.
6	3 wks.	POB 300,000	1 gluteal inj.	Cleared in 24 hrs.
7	1 wk.	POB 300,000	1 gluteal inj.	Cleared in 48 hrs.
8	1 wk.	Penicillin ung.		Cleared in 1 wk.
9	3 wks.	POB 75,000	2 gluteal inj.	Cleared in 4 days
10	3 wks.	POB 150,000	1 gluteal inj.	Discont. (hives)
11	1 wk.	Penicillin ung.		Not followed up.
		ECTHYMA		
12	4 wks.	POB 150,000	1 gluteal inj.	Cleared in 4 days
13	1 wk.	POB 150,000	1 gluteal inj.	Cleared in 5 days
14	3 wks.	POB 300,000	1 gluteal & ung.	Cleared in 4 days
15	6 wks.	POB 150,000	2 gluteal inj.	Cleared in 6 days
16	2 wks.	POB 150,000	3 gluteal inj.	Cleared in 4 days
		SYCOSIS VULGARIS		
17	5 wks.	Penicillin ung.		Unsatisfactory*
		CARBUNCLE		
18	1 wk.	POB 75,000	1 (regional)	Cleared in 5 days
19	6 days	POB 300,000	2 gluteal inj.	Cleared in 3 days
		ERYSIPELAS		
20	10 days	POB 150,000	1 gluteal inj.	Cleared in 4 days
		ABSCESS		
21	2 wks.	POB 300,000	1 gluteal inj.	Cleared in 6 days
22	2 wks.	POB 150,000	5 perineal (regional)	Cleared in 7 days
		FOLLICULITIS		
23	4 mo.	POB 300,000	1 gluteal inj.	Cleared in 5 days
		CELLULITIS		
24	1 wk.	POB 150,000	2 gluteal inj.	Cleared in 3 days
25	5 days	POB 300,000	2 gluteal inj.	Cleared in 3 days
		SECONDARY INFECTION		
26	3 days	POB 300,000	1 gluteal inj.	Cleared in 2 days
27	3 wks.	Penicillin ung.		Cleared in 10 days
28	5 years	Penicillin sol. 20,000	25 gluteal inj.	Unsatisfactory
		VINCENT'S ANGINA		
29	3 wks.	POB 150,000	6 gluteal inj.	Cleared in 9 days
30	10 days	Penicillin sol. 20,000	48 gluteal inj.	Cleared in 6 days

*Note: This case subsequently cleared up with 3 injections of P.O.B., 300,000 units each, given 24 hours apart.

staphylococci may develop during treatment and increase in frequency as treatment is prolonged. Large doses may prevent this development of staphylococci refractory to penicillin. This same study reports that all strains of haemolytic streptococci before and after treatment were sensitive to penicillin.

T. pallidum, according to practically all published reports, shows no resistance to penicillin. However, this fact does not preclude the possibility of relapse or treatment failure due to causes that may not be entirely understood.

The usefulness of topical penicillin therapy in the treatment of superficial infections of the skin is also seriously jeopardized by the increased incidence of sensitivity, which is being encountered. The present incidence of sensitivity reactions is apparently 15 per cent and this percentage may increase as more persons are exposed to the drug. Some recommend routine patch testing before local application of penicillin preparations.

The rate of permeability, if any, of penicillin through the unbroken skin has not been definitely established. Therefore, it should be remembered that the addition of boric acid compresses still is a valuable adjunct in the treatment of superficial pyogenic infection because of its ability to penetrate the unbroken skin. Dr. Kahlenberg and I confirmed this fact in experiments completed in 1927.

Penicillin is recommended for routine use intramuscularly before and after skin grafting in cases of ulcer of the leg that are treated by pinch grafts and in which the surface infection is caused by the Beta haemolytic streptococcus and haemolytic staphylococcus aureus, and it probably could be used with benefit for all ulcers, irrespective of the nature of the surface infection.

In local infections, disability is reduced far below the point reached by any other method of treatment. Pain is quickly relieved — in some cases within an hour and always within 36 hours. There is no deformity such as that frequently seen following radical surgical incision and drainage.

One of the problems facing the practitioner today is the frequent demand on the part of the patient that penicillin be used whether or not the organism may be susceptible to the drug. If the physician refuses to use the penicillin and the results of his therapy are strongly negative or even fatal, he may be blamed for not utilizing what the patient has been led to believe is a panacea. The situation may be handled in some cases, by pointing out to the patient the futility of the procedure with the warning that he may become penicillin-resistant and thus deny himself its effect in more serious disorders amenable to penicillin at a later date. The patient may also become sensitized and allergic to the drug. These are also definite arguments against self medication with penicillin, which threatens to become popular.

I have found no record of a single fatality in the use of penicillin, even in extremely large doses, unless one includes the few deaths of newborn infants who may have died under any other or no treatment.

While there are fewer untoward reactions with penicillin than with the sulphonamide drugs, a number of cases have provoked local pain at the site of the injection and/or other reactions such as slight fever, urticaria, transient azotemia, angioneurotic edema and, in rare cases, formation of sterile abscess. In these cases, the treatment may be changed to the sulphonamide drugs. Another site may be selected for the injection, thus relieving the pain. The antihistaminic drugs are recommended to allay the allergic reactions of the penicillin. A number of cases of giant urticaria in the injection area have been reported by others and one by me.

It is thought by some that the untoward reactions may not be due to the penicillin at all, but to unknown substances contained in the mixture and to some extent even in the crystalline preparations.

In the study of a group of miscellaneous skin infections treated with penicillin, it has been found that mycotic infections with the exception of some cases of actinomycosis generally fail to respond to penicillin and, as a matter of fact, often become exacerbated when penicillin is administered.

With the apparent increase in human anthrax, it is interesting to note a report that penicillin in heavy doses has been very successful in cutaneous anthrax. All patients treated recovered uneventfully.

In taking up the subject of the treatment of syphilis with this drug, some of the facts collected from various authentic sources are difficult to realize. The quick action of penicillin in most cases of early syphilis, especially in infected pregnant women, combined with the advantages in late syphilis and in neurosyphilis is impressive, especially to those who may have believed that arsenic and bismuth treatments were the last word. It is true that some cases may need the addition of metal therapy.

The status of the treatment of syphilis with penicillin is also necessarily fluid, and therefore we should not be arbitrary in the matter of dosage. However, the recommendation of the National Research Council, given last year, may be summarized as follows: 1. Early syphilis — 40,000 units every three hours for 60 doses — a total of 2,400,000 units during a period of 7½ days. 2. Latent syphilis — 40,000 units every three hours for 100 doses or a total of 4,000,000 units in 12½ days.

In the secondary stages and the relapses it is best to follow a combined treatment to include 1,200,000 units of penicillin in doses of 20,000 units every three hours for 60 doses and 0.04 grams of oxophenarsine hydrochloride (or its analogue) every day for eight days; bismuth in small doses totaling .6 to 1.0 grams. Since arsenic and penicillin are synergistic, smaller amounts of both are administered than if either were given alone. When penicillin is used without metal, it may be advisable to double the amount recommended above.

While bismuth preparations vary in effect, bismuth treatment added to the penicillin therapy has also reduced the incidence of early relapse. I reported general indications and contraindications to the use of bismuth in the treatment of syphilis, with other study in an earlier paper.

Milligram for milligram, penicillin is two to four times as effective as oxophenarsine hydrochloride (or its analogues) in man. Unlike that drug, the time over which penicillin is administered is as important as the total dosage. But as little as 1/10 of the curative dose, properly distributed at one period, kills most of the spirochetes. The rest is used for irradicating a small number of relatively resistant organisms.

It may become increasingly difficult to make a diagnosis of syphilis because of the masking influence of the widespread use of penicillin in other disorders. Care should be exercised in treating gonococcal infections with small doses of penicillin (50,000 — 150,000 units), for concomitant undiagnosed primary syphilitic lesions may heal entirely only to recur; secondary lesions may develop or the patient may unrecognizedly progress to the late sequelae of the disease. Even should syphilitic lesions be discovered before the healing occurs, they are rendered extremely difficult for diagnosis because of the rapid destruction of the surface treponemes by the inadequate doses of penicillin. Thus patients who have been treated for gonorrhea should be urged to return for periodic blood tests, particularly in event of any genital or cutaneous eruption and should be warned against sexual intercourse until the observation time is finished.

Relapse in syphilis may be due to a failure of host immunity or a longer duration of the disease. Studies indicate that 40 to 50 per cent of the clinical relapses actually may be reinfections. As a result of the rapid response to penicillin therapy in early syphilis it has been possible for a syphilitic man to infect his wife and to be treated and cured during her incubation period. She at a later date may reinfect him and vice versa. Thus a vicious cycle is established and this "batting" back and forth has been described as "ping pong" syphilis.

In nearly all reports of early syphilis, the results have been favorable when penicillin has been used, although the failure rate still remains about 20%. Intensive metal chemotherapy has been more effective than penicillin in reducing relapse and failure rate but the high incidence of treatment reactions, such as dermatitis and hemorrhagic encephalitis and also the fact that a substantial percentage of patients do not complete the schedule which they start, has made its use less desirable. Penicillin in aqueous solution injected intramuscularly in equal doses is a highly satisfactory routine. These treatments are given at 2-3 hour intervals for seven to eight days, with necessary hospitalization to assure regular treatment, to check on the patient and to prevent reinfection. Recent work in the use of POB emphasizes a minimum dose of 600,000 units or 2 cc, intramuscularly daily in syphilis.

Results are a bit inconclusive on latent syphi-

lis, and the so-called "Wasserman Fastness" has not responded better to penicillin than to other methods of treatment, and this has been thought to be due to the fact that penicillin is only effective in the rapidly dividing phases of the organism.

In late syphilis, gummas and nodular syphilids of the skin and mucosa heal rapidly. An important contribution is the effect of penicillin in clearing up the usual concomitant secondary infection which formerly continued on after metal therapy had completed its spirocheaticidal action.

There is considerable disagreement in the reports from different clinics on the effects of penicillin in neurosyphilis. The most striking beneficial effects have been on the spinal fluid. Penicillin, combined with malaria or other types of fever, may yield results superior to either method alone. Meningeal forms of neurosyphilis respond better to penicillin than do the parenchymatous. Penicillin alone in a total dosage of 4.0 to 10.0 million units over a time period of 7½ to 21 days, is recommended as an initial course of treatment for patients with asymptomatic (early or late) neurosyphilis, acute syphilitic meningitis, diffuse meningovascular neurosyphilis, gumma of the brain or cord, and vascular neurosyphilis. Penicillin plus fever is suggested for general paresis, taboparesis, primary optic atrophy, nerve deafness, syphilitic epilepsy, and Erb's spastic paraplegia.

Studies warn against intensive penicillin treatment in cardiovascular syphilis. This corresponds with the use of arsenicals in the treatment of this condition. However, a practical schedule for treating these patients has been worked out consisting of very small doses, beginning with 1,000 units given every three hours and increasing gradually to a more effective dose range.

Reports indicate that in syphilis in pregnancy penicillin is superior to other drugs. It has the advantage over heavy metal therapy in that it may be given at any stage of pregnancy, even at termination, with the prospect of a syphilis-free infant, although early treatment is advised. A minimum total dosage of 2,400,000 units is suggested. Serologic followup of the mother every two months until the reaction has been negative for a year is advised, and of the infant every two months for six months.

That penicillin is "the best single agent yet employed for the treatment of congenital syphilis" is concluded from an analysis of results in 252 infants treated at five cooperating university clinics. Over-all results were satisfactory in 73 per cent, unsatisfactory in 9.1 per cent, uncertain in 17.9 per cent. The fatality rate was lowered and clinical results were more satisfactory with passage of time. Recommendations are that penicillin dosage for syphilitic infants should be 100,000 units/Kg. (50,000 per lb.) body weight administered in 120 equal intramuscular injections at not more than 3 hour intervals over a period of 12 to 15 days.

Since suggestions for methods of penicillin therapy are largely experimental and the eventual decision on the best methods may not be determined for months or even years, the physician has a particular responsibility for careful follow-up and frequently repeated post-treatment observations on all patients so treated. Duration of treatment must be based on clinical experience. The problem of standardized penicillin therapy is further complicated by variations in sensitivity of a given organism to the drug and by variations in a given lot.

Experiments with pure crystalline penicillin G have not been completed, and the relative merits and superiority of the amorphous mixture compared to the crystalline penicillin G have not been definitely evaluated. Reports from pharmaceutical laboratories indicate that in the treatment of experimental infection in animals by the administration of very small doses of penicillin the effect of the amorphous type is better than that of the crystalline penicillin G. This is thought to be due to a substance in the penicillin mixture which has not yet been identified. However in the larger doses which are usually given in treatment in man there has clinically been no evidence of a therapeutic superiority of one form of penicillin over the other.

Fundamental points to be remembered in penicillin treatment are:

1. The organism must be susceptible to penicillin.

2. The organism must be reached by the penicillin in sufficient concentration.

3. The organism must be eradicated or suppressed.

SUMMARY

The status of penicillin in the treatment of cutaneous disorders, including syphilis, is in a constant state of flux, due to variations in the drug itself and even in the lots distributed by a single drug house, as well as due to the increasing reports of new studies.

1. Reports generally agree on the successful treatment with penicillin of abscess, actinomycosis, anthrax, carbuncles, cellulitis, coccogenic sycosis, ecthyma, erysipelas, erysipeloid of Rosenbach, folliculitis, furunculosis, hidradenitis suppurativa, infectious eczematoid dermatitis, impetigo, keratodermia blennorrhagicum, paronychia, pyoderma gangrenosum, syphilis, ulcers (infected), Vincent's angina, yaws and secondary infections in mycosis fungoides, kerion and dermatitis venenata.

2. Unsatisfactory results have followed treatment with penicillin of acne vulgaris, chancroid, dermatomysitis, eczema, granuloma inguinale and lymphogranuloma venereum, lupus erythematosus, pemphigus vulgaris, and psoriasis.

3. Outstanding advantages in the treatment of certain diseases are: absence of drug mortality, fewer adverse reactions than with metal therapy and some other drugs, vastly quicker results in certain treatments, fewer reports of sensitization than with many popular drugs, disability period greatly reduced below that of other treatment of local infections, and absence of deformity in certain cases formerly requiring surgery.

4. Regional injection method with penicillin in beeswax and peanut oil (POB) has proven successful by the writer in the treatment of carbunculosis.

5. Paralleling certain pioneer hospital and clinical studies for more than two years, the experience of this writer with penicillin in beeswax and peanut oil, in the treatment of certain cutaneous diseases, has been, even when limited to office practice, very satisfactory.

A study of 30 fairly typical cases of cutaneous infection reveals that doses of 150,000 to 300,000 units of penicillin in beeswax and peanut oil, given intramuscularly in single daily injections for one or two days gave gratifying results in nearly all cases. Most of the infections cleared in from one to four days as compared to much longer periods with similar cases treated with the customary drugs. There were fewer untoward reactions, less pain, reduced disability periods, little or no scar tissue, and less sensitization in most cases (approximately 5% or less). The success of the POB method of treatment indicates elimination of the serious disadvantage of hospitalization in many cases.

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CONTINUITY METASTASES

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Continuity metastases designates the spread of malignancy to contiguous structures by continuity. The treatment of this complicating condition is the subject of this paper.

It is axiomatic that cancer is curable by adequate surgery *as long as it is a local disease* and it is well known that the largest local growths are not uncommonly the more benign. The mere spread of such growths to adjacent resectable or excisable structures should not deter the surgeon's courage to attempt a radical excision providing distant metastases are not demonstrable. Speed today is not a prime factor. Careful,

Read before General Assembly of Illinois State Medical Society, Chicago, May 12, 1947.

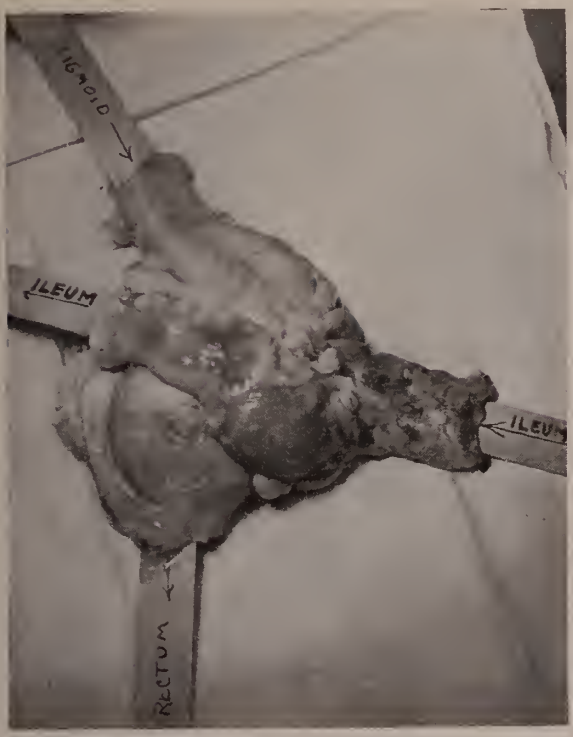


Figure 1. Adenocarcinoma of rectosigmoid junction with continuity metastasis to ileum and ileo-colic fistula. Patient a male, now age 73 living and well after resection.

accurate dissection without traumatizing tissue and meticulous hemostasis will reduce to a minimum the incidence of operative shock, and lower the morbidity as well as the mortality. The high tension, slap-jack, quick-in and quick-out surgeon who reperitonealized nothing and whose trust in God only arrested the lesser bleeders was the surgeon of the era of uncertain anaesthesia, the era when the surgeon's fear of the anaesthetist was only exceeded by the anaesthetist's fear of the surgeon. Today, on the other hand, anaesthesia is coming into more and more competent hands. Improved methods have made it possible to operate with the patient practically in a state of physiological sleep, and there is no excuse for unnecessary speed or the rough, high-pressure surgery of a few decades ago.

The operative time nevertheless in expert hands in massive resections of bowel, bladder and abdominal wall with or without contiguous solid organs or bone is of sufficient importance to deserve comment. In less expert hands it is of still more moment. One must be prepared to operate from one and one-half to five hours or longer when once he has committed himself to the task of an adequate radical excision of a lesion that has metastasized into adjacent structures.

Lahey, Sugarbaker, Brunschwig and others have recently reported cases of very extensive surgery in attempts to eradicate malignancy with continuity metastasis. The risk is, of course, greater in the gamble for a cure but to accept a defeatist's attitude and close without radical effort is abetting rather than contesting the malignant process. Until the time comes, therefore, when we have a simpler and less mutilating cure for malignancy, we must continue with radical surgical extirpation and extend further the frontiers of operability.

Needless to say, hypoproteinemia, vitamin deficiency particularly of B complex, C orK, anemia, and imbalance of electrolytes should be corrected preoperatively. The division of the surgery into stages, particularly in the aged and debilitated, is of prime importance. Preliminary or simultaneous transverse colostomy in resections of the sigmoid and upper rectum is recommended. "Short cuts" are tempting and brilliant when successful, but beware of them. We have regretted yielding to the temptation of primary sigmoid resection without adequate decompression of the anastomosis by large caecostomy or colostomy. Only in the unobstructed patients in good condition with the preoperative use of sulfasuxidine and meticulous aseptic anastomotic technique can the mortality of primary resection without colostomy or caecostomy be kept within four per cent limits; unless these ideal conditions are present it should not be attempted.

In the period from November 1, 1936, to February 1, 1947, fifteen patients have been operated on for malignant neoplasms with continuity metastasis. There were two deaths in the immediate postoperative period, an operative mortality of 13.3%. Three patients are alive and well for over five years since operation, one for four years, and two for three years. Five patients have survived for over a year and of these four show no evidence of recurrence or metastasis.

The ages of the patients varied from 49 to 81, the average age being 58.2 yrs. In this series there were ten female patients and five male patients.

The primary site of the neoplasm was the colon or rectum in eight cases, the stomach in



Figure 2. Adenocarcinoma of caecum with continuity metastasis to a loop of upper ileum, urinary bladder, abdominal wall and appendix. Patient female now age 84 living and well 4 years after massive resection.

three, the uterus in two, and the ovary in two.

Continuity metastasis to the abdominal parietes was present in five cases. In seven cases there was direct extension to an adjacent loop of intestine. The pancreas was involved in three cases and in four cases there was continuity metastasis to the bladder. Extension of the carcinoma by continuity to the uterus occurred in one case, the liver in one case and the prostate gland in one case.

Resections of adherent portions of the abdominal wall including the peritoneum, transversalis and internal oblique muscles do not produce troublesome herniation but only local weakness if it is possible to leave intact the external oblique. We have been able to preserve this structure in all of our cases.

Resections of the urinary bladder were treated by two or three layer closure with the insertion of an indwelling catheter per urethra for a period of 5 days. In no case was suprapubic cystostomy a part of the procedure.

The neoplasm was resected by a single stage procedure in twelve cases. In two patients a two stage operation was performed and in one a three stage technique was used.

Spinal anaesthesia was employed in all of the operations. Continuous spinal anaesthesia was used in eleven procedures, a single dose spinal was administered for eight. The anaesthetic agent was pontocaine weighted with dextrose in all cases but one in which novocaine was used.

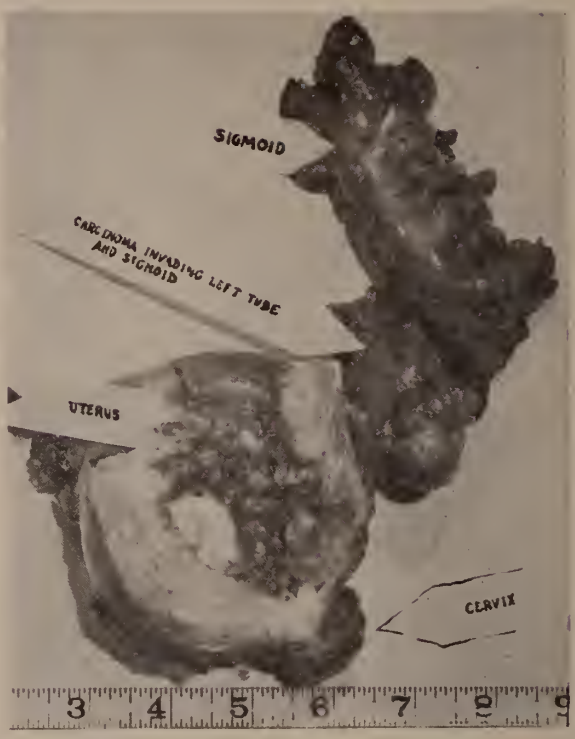


Figure 3. Adenocarcinoma of uterus with metastasis by continuity to left tube and sigmoid colon. Patient now age 61 living and well 3¾ years after resection.

The spinal anaesthesia was supplemented in seven procedures with the following agents: Ether-one, cyclopropane-one, sodium pentothal-three, nitrous oxide-two.

The anaesthetic problem in these prolonged procedures in our opinion deserves as much consideration as does the surgical technique. In the smaller hospitals, in which the most of us work, we are not all favored with expert physician anaesthetists who are capable of meeting all the surgical exigencies of narcosis; we do not have intravenous teams to appear on the instant of call. To cope with this situation we lean heavily on the nursing and resident personnel. In our opinion the *well trained nurse anaesthetist* is far superior to the *untrained physician* who gives only an occasional anaesthetic.

We have found the milder gases with curare to be quite satisfactory, but special mention should be made of continuous spinal anaesthesia administered by the catheter technique of Touhy. One of us (FEH) for ten years has used pontocaine weighted with dextrose to increase its specific gravity. Complete satisfaction has grown to enthusiasm. The initial dose of 18 to 20 mg.

of the drug* is supplemented at 50 minute intervals (in the average case) by the addition of four to six mg. per indwelling intrathecal catheter. Fall in the sensory anaesthesia level as determined by pin prick method to ascertain the need of additional anaesthesia has been found to be unreliable. Motor recovery with loss of relaxation and consequent loss of exposure and the patient's reaction to painful stimuli within the abdomen are more accurate indices of need of additional spinal anaesthesia. If the initial dose of 18 to 20 mg. of the drug is supplemented at 50 min. intervals by the addition of four to six mg. an adequate anaesthesia may be maintained for hours on end without intoxicating the patient. Prolonged inhalation anaesthesia often makes the recovery from the anaesthesia alone more stupendous than the recovery from the surgery. The extent of anaesthesia is regulated by using a weighted drug (one of higher specific gravity than the spinal fluid) and tilting the table in 20° to 45° Trendelenburg until the drug reaches the desired level. We wish to point out that in using this type of anaesthesia it must always be borne in mind that individuals vary greatly in the time it takes for the onset of anaesthesia and also in the rapidity of ascent of the anaesthesia level. The anaesthesia may be complete in five seconds after the Trendelenburg position is assumed or it may take 25 minutes. Failure to test immediately the anaesthesia level and check and recheck its progress could lead to bulbar paralysis and catastrophy. Consider all patients as "5 second spinals" until they prove themselves otherwise and this pitfall will always be avoided.

*One per cent solution of pontocaine.

For over sixty years it has been known that the tubercle bacillus is the cause of tuberculosis, and that it should be looked for in the sputum of patients with respiratory infections has become axiomatic. Notwithstanding this common knowledge, physicians very often lose valuable time treating tuberculous patients for colds, bronchitis, or asthma, and they may even have tonsils removed because of cough before a specimen of sputum is examined for tubercle bacilli. Henry D. Chadwick, M.D. and Alton S. Pope, M.D. The Modern Attack on Tuberculosis, The Commonwealth Fund, Revised, 1946.

THE MORE COMMON CAUSES OF FAILURE IN TREATMENT OF VARICOSE VEINS

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A few years ago we were amazed at the number of patients whom we saw at our clinics at the Evanston and St. Joseph's hospitals and in the clinic at Northwestern University who had had many injections and ligations with very little if any improvement in their varicose condition. For that reason we thought it would be interesting to mention some of the causes of failure to produce good results. You are familiar with the distribution of the superficial veins in the saphenous system of the legs and the many communicating branches between these veins and the deeper veins. It therefore won't be necessary to take up your time in a review of the anatomy. The normal upward flow in the leg veins is aided by pressure of the arterial blood through the capillaries, by the pumping effect of the calf muscles as they contract on the deep veins while one is walking, and by the suction produced by breathing as a negative pressure is created in the chest during inspiration.

Before mentioning some of the causes of failure to produce good results in the treatment of varicose veins we wish to refresh your memories with a few rather generally accepted facts.

These veins become varicose because:

(1) Some people are born with a set of vein walls that are weaker in some sections and the back pressure of blood causes these veins to stretch so that the lumen may become several times larger than normal. Therefore the valves become useless and a vicious circle is established. The more stretching the worse the valves fit, and the worse the valves fit the more back pressure, therefore, the more stretching and so on.

(2) During infections where there is a bacteriemia there may be damage to the valves and to scattered areas of the vein wall. Here the weakened wall dilates slowly at first and more

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rapidly later because the valve function is lost.

(3) Mechanical pressure of abdominal tumors, pregnancies and ascites may dam back the blood enough to cause a break-down in the saphenous system. Varicose veins also develop during a pregnancy because the increased flow of blood into the common iliac veins from the uterus interferes with the flow from the external iliacs, also because of a disturbance in the hormones which permit the muscles of the vein walls, especially in the pelvis, to soften and to stretch.

(4) Thrombo-phlebitis must also be considered as a potent factor in the production of varicose veins.

The most commonly used treatment of varicose veins consists in the ligation as a first step and the destruction of these veins with some sclerosing solution as a follow-up. The theory of preliminary ligation is based on the fact that the flow of blood in any well-developed case of varicose veins is actually reversed and flows downward towards the foot, through the saphenous and back up the deeper veins. A high ligation in the proper place will cut off this reverse flow and must be done as the first step in advanced cases.

(I) Some of our failures are the result of improper diagnosis as to the source of the trouble. Seldom do we see a record of varicose veins in the calf originating from the lesser saphenous that comes directly off of the popliteal vein, but in our experience this condition is present in about one out of twenty cases. We have seen many patients who have had apparently good ligations in the saphenous and careful follow-up injections but the veins in the lower leg have promptly re-opened. If you look for this vein you can easily find it and avoid disappointment. Naturally, in these cases ligations in the long saphenous will be of no benefit. Once in a while the source of the trouble will be from the gluteal or pudendal branches or from any other veins in the leg. Even multiple ligations by surgeons with considerable experience in this field sometimes fail to cut off the back flow because they never seem to locate all the feeders.

(II) Some failures are the result of surgery that is done in the face of contra-indications.

1. At times there is no indication for either ligation or injection even though large varicose veins are present. These varicosities might be the result of an overload because of obstruction in the deeper circulation. If the leg is depending largely on the saphenous system for its return flow of blood it would be quite embarrassing to ligate it. A properly fitted elastic stocking or bandage is all that is indicated. This stocking should be tight enough to support the veins but not tight enough to constrict them.

2. The radical treatment of varicose veins during pregnancy does not seem to be justifiable. One can, however, at times give much relief and prevent the formation of an unsightly condition by the ligation or injection of a feeder vein into a rapidly forming burst. After delivery a more radical attack on the veins may be done.

3. Pelvis tumors or other mechanical obstructions to the venous flow are apt to cause failures if they are not removed before eradication of the veins is attempted.

4. Bursts of veins seen so frequently in the skin are not from the saphenous system and are not benefitted, but are often made worse by ligating the saphenous. In some cases they can be improved by injecting bubbles of a sclerosing solution or by electrical coagulation. To produce bubbles of a sclerosing solution one pulls the plunger of the syringe back about ¼ inch and gives the syringe a few rapid shakes. This will produce a froth that may be injected upward out of the needle. The reason for these bubbles is to dilute the solution for the concentrated solution is apt to cause a constricting spasm in these very small veins.

5. If phlebitis is present or has been present recently one is apt to stir up a bonfire by injection. The litigation proximal to the phlebitis often gives almost instant relief by cutting some of the sympathetic fibers and by preventing extension.

6. An infected varicose ulcer should be cleaned up for a few days by elevating the foot and applying suitable dressings. If one has the time it would be more safe to permit the ulcer to heal completely under the supportive treatment with an elastic bandage or to skin graft before destroying the viens. We have done a little preliminary work at the Medical school that

indicates that the ascorbic acid content in the stagnant blood in the veins around the varicose ulcers is much less than that in the free flowing blood taken from other veins. Keeping this in mind might help us to clear these ulcers up faster.

7. Some of the systemic contra-indications for ligation and injection are hyperthyroidism, active tuberculosis, anemia or any other debilitating disease, also acute infections especially those of the respiratory system.

(III) Failure in surgical technique of operation or incomplete follow-up may lead to disappointment.

A. If palpable veins with incompetent valves run up above the knee it is foolish to attempt to sclerose them without first ligating, for the back pressure from above will re-open them sooner or later. The injection treatment alone is seldom used except for the small veins. About 90% of patients with varicose veins will have a positive Trandelenberg; in other words will have incompetent valves. If one can elicit a percussion impulse up in the inguinal region where the saphenous joins the femoral, the saphenous should be ligated at this junction, care being taken to ligate also each of the several branches that usually enter near here. If ligation is not made above these branches and if they are not ligated and divided they will dilate in the next year or so and dump a column of blood into the lower leg that will either open up the sclerosed veins or dilate some smaller branches and spoil all the work previously done.

B. Some depend alone on a high ligation, but we prefer to add to this a ligation down near the knee below the last communicating branch with the femoral in the thigh. This takes only a few extra minutes and adds much to the assurance of a good result. As practical points we would like to remind you that when the patient is standing the veins may stick out like a sore thumb, but when lying down on the operating table they often can neither be seen nor palpated. To make it easier to find them always mark the skin at the point of intended ligation with some sharp instrument while the patient is standing. Sutures in an incision across the leg near the knee should not be removed in less than eight days unless the incision is well bridged with adhesive for this wound is apt to pull open. The veins ligated through this lower incision should be dissected at least one-half inch back from the skin edge so that the stubs that slough off will not be directly under the suture line, for a pool of serum may collect and break through the healed scar. This will do no special harm, but usually annoys the patient. In most cases we prefer to inject the saphenous with a cannula on the operating table for we believe that the quick obliteration of as much of the vein as can be done with safety is desirable. The slower destruction of the veins gives more time for the smaller communicating branches to dilate between injections especially if the interval is long. These may be the source of many recurrences. This more extensive obliteration is more uncomfortable but believe that it is worth it.

C. The trauma of dissecting down to and opening of a vein for a retrograde injection of a sclerosing solution will cause a spasm and narrow the lumen of the vein. This brings more of the solution in contact with the wall, thus producing extensive sclerosis. In other words the amount of solution you inject at the time of the operation will sclerose much more vein because of this spasm than when injected in the follow-up treatment in the office. Two cc. of sylnasol injected into the saphenous after it has been ligated above will usually sclerose the vein down to the knee while this same amount may sclerose only a few inches when injected later in the office.

(IV) Mistakes or accidents in the technique of injections and the material used may produce uncomfortable complications.

A. Naturally all the sclerosing solution should be deposited in the lumen of the vein. The bevel of the needle may be far enough in the vein to aspirate blood but not entirely in, so that some of the solution may be deposited outside the vein. Again if some of the solution is deposited in the vein wall or if the injection is made too fast a veinous spasm may pull the vein off the needle. If this is not detected at once you will deposit sclerosing solution outside the vein, therefore you must keep your eye on the needle at all times.

B. Some people are sensitive to the sclerosing solutions and get more reaction than others from a given amount. For this reason the first injection should be a small test dose of about one-half cc. Even this small amount may start an ascending thrombosis that will require an emergency li-

gation to prevent its entering the femoral. We have also had patients who developed allergic reactions after a rest period of several weeks to the solution that had formerly been used without a reaction. It is well, therefore, to start again with a test dose if there has been a lapse in treatment.

C. One may produce a severe arterial spasm in the extremity following ligation and retrograde injection of a large segment of the saphenous vein. Cases have been reported where a gangrene has resulted from such a spasm. It is well, therefore, to make certain that the arterial supply to the foot is adequate so that if a spasm is produced the result will be less disastrous.

D. If one nicks the wall of a vein in an attempt to inject it he may get a spasm that will close the lumen and make it impossible to proceed. If this happens one should not attempt another injection in this area for a few days for he is apt to fail again.

(V) Another very common mistake is made in the lack of proper follow-up and after treatment. Small veins that are not large enough to be noticed will dilate and veins that appear to be permanently sclerosed will re-open. Therefore, after you feel that no more injections are indicated the patient should be observed at first at least every few weeks and later every six to twelve months for a few years. This will keep the varicose condition well under control for small breakdowns can be injected before they become large. I know of no place where the old adage "a stitch in time saves nine" fits better than in the treatment of varicose veins. Any discussion of the end results and recurrences must take into consideration the pathology present in the varicose veins. It is essentially one of degeneration or the result of damage or injury that may have been sustained years before. If that process and those factors whatever they may be, are still active more varicose veins are bound to develop as time goes on.

take into consideration the pathology present

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TEST PILOTS OF JET PLANE REPORT MYSTERIOUS SICKNESS

The London correspondent of *The Journal of the American Medical Association* reports that some test pilots of jet planes have complained of a mysterious sickness. The correspondent also mentions a man, engaged in testing jet engines, who suffered from ear trouble. This has led to the suspicion that vibration and sounds inaudible to the human ear may have a serious effect on persons constantly in proximity to such engines.

The Ministry of Supply, a manufacturer of jet engines and aircraft and the acoustics laboratory of the Royal Aircraft Establishment have been conducting investigations, but so far there is no evidence of the existence of any occupational malady connected with jet engines.

The investigations, which are still under way, have not turned up any signs of supersonic sickness among the manufacturing firm's test pilots who have been flying jet-propelled aircraft.

The medical officer of the same jet company found, however, that test-bed employees who had worked continuously for 10 hours required two days to overcome their fatigue, while those working five hours recovered after one night's sleep.

STUDY PRODUCES NEW EVIDENCE ABOUT TRANSMISSION OF POLIO

Investigators Believe Virus From Throat Is Common Source of Infection In Transmission By Contact

Important new evidence concerning the transmission of poliomyelitis by personal contact is presented by four investigators in the December 6 issue of *The Journal of the American Medical Association*. The investigators are F. B. Gordon, M. D., and Frank M. Schabel Jr., S. B., from the Department of Bacteriology and Parasitology of the University of Chicago; Albert E. Casey, M. D., from the Birmingham Baptist Hospital in Alabama, and William I. Fishein, M. D., from the Chicago Health Department. Their work was done with the cooperation of Herman N. Bundesen, M. D., and the technical assistance of Margaret Abendroth, A. B., Chicago.

For some time it has been generally agreed that poliomeylitis is infectious only during a period that begins a few days before and ends a few days after the development of symptoms. Studies have also shown that the polio virus is usually found in the throat for only a short time after illness begins, but up to now much of the necessary evidence was lacking to establish a relationship between the period of infectiousness and the period when the virus is found in the throat. In only two cases had tests been made for virus in the throat *before* the development of the illness.

Material for more such tests was finally collected during a polio epidemic in Chicago during the summers of 1945 and 1946. Hundreds of apparently healthy children in the afflicted neighborhoods were visited, among them a number who had had contact with the sick children, before their illness. During daily visits throat and mouth swabs were taken both from the contacts and the non-contacts. As expected, poliomyelitis eventually developed in three of the children who had had contact with polio cases, and a similar study revealed a fourth such case. The mouth and throat swabbings taken from all four patients a short time before they became ill were then tested for the virus, and specimens from three of them produced polio in monkeys. Specimens prepared from the throat and mouth swabbings of a non-contact and of controls proved harmless.

"The laboratory studies make a strong case for virus from the pharynx as a common source of infection," the investigators write.

URETHANE PROVES TOXIC IN LEUKEMIA, PATIENT DIES

Urethane, a drug recently used with promising results in treatment of leukemia, sometimes called cancer of the blood because the white blood cells multiply too rapidly, is apparently more toxic in leukemia than is generally believed, John Joseph Webster, M. D., New York, warns in the December 6 issue of *The Journal of the American Medical Association*. He reports the second case in which a patient died after treatment with the drug.

Urethane, used chiefly in other diseases to relieve fever and spasms and produce sleep, has always been considered relatively safe and non-toxic. The first report of the effect of urethane in leukemia appeared in 1946. It revealed that the drug usually causes a decrease in white blood cells in this disease.

In the fatal case which Dr. Webster reports, the patient was treated with x-rays and later with daily doses of urethane. The drug was withdrawn because the patient developed complications, but he died within a short time — with his once-too-numerous white blood cells virtually non- existent.

"Urethane promises to be a valuable aid in the therapy of leukemia," Dr. Webster writes, "but the reports of untoward results warrant further investigation before widespread use is advocated."

Industrial Health

Committee On Industrial Health — Jos. H. Chivers, Chm., 836 S. Michigan Ave., Chicago 5, Frank P. Hammond, H. A. Vonachen, R. I. Barickman, C. O. Sappington, Milton H. Kronenberg.

The following reprints relating to the interpretation of nodular shadows in x-rays of the chest should be of particular interest to physicians in industry who are conducting mass x-ray surveys

J. H. C.

NODULATION WITH SUPERIMPOSED INFECTION IN LUNGS OF FOUNDRY GRINDERS AND BURNERS

Report of Four Unusual Cases

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The origin of diffuse nodular shadows observed in roentgenograms of the chests of certain grinders and burners in the foundry and other industries has aroused considerable speculation in recent years. Those familiar with new developments in the field of occupational disease have become more cautious in diagnosing such roentgenograms, realizing that findings in numerous unrelated conditions may easily be mistaken for silicosis, especially when the person concerned had worked in an atmosphere which might have exposed him to dust. Unfortunately some general practitioners, industrial physicians and roentgenologists still insist on interpreting these patterns as first, second or third degree silicosis, regardless of the type of work or degree of exposure to respirable-sized particles of harmful dust to which an employee may have been subjected. The effect of such injudicious information is far reaching. It frequently results in unnecessary apprehension, financial loss and unjustified claims for disability.

In 1938 Sander and Enzer[1] described changes almost identical with silcosis in the pulmonary markings of electric arc welders whose occupations did not expose them to free silica but involved an atmospheric concentration of iron oxide sufficient to produce nodulation. Postmortem observation in 3 such cases demonstrated no evidence of silicotic fibrosis whatsoever. The changes in the lungs consisted solely of deposits of inert iron pigment in the lymphatics which were not productive of symptoms or disability. Reports from other sources in this country and abroad have confirmed these observations. McLaughlin, Grout, Barrie and Harding[2] in 1945 described similar findings in 4 silver finishers exposed to pure iron oxide dust from rouge. They found no fibrosis in the lungs and stated that a worker who has inhaled radiopaque dusts may have a roentgen picture of the lungs simulating early silicosis, miliary tuberculosis or other pathologic conditions and yet have no obvious physical disability. Pendergrass and Leopold,[3] also in 1945, reported 11 cases of siderosis in grinders resembling those observed by Sander and Enzer. Harding[4] in January 1945 portrayed roentgenographic stippling or fine nodulation of the lungs produced in rats by intratracheal injection of rouge (ferric oxide), which caused no detectable fibrosis over a period of eight months. Buckell, Garrad, Jupe, McLaughlin and Perry,[5] in 1946, performed roentgenographic examinations of the chests of 171 iron turners and grinders (138 men and 33 women) exposed to dust in iron turneries in England. Changes in the lungs in the form of reticulation due to iron oxide were present in 15 persons. Five of these persons had been working in this occupation for more than twenty years. The changes were not gross and few

symptoms were noted. Only 1 man complained of shortness of breath, though 6 stated that they had some cough. Dust from rafter samples contained 37.1 per cent metallic iron and 23.3 per cent iron oxide. The total silica content was 5.4 per cent and the silicate residue 1.3 per cent.

In November 1945 my colleagues and I reported[6] atypical nodulation in 68 foundry grinders and burners, observed over a period of eleven years, whose roentgen patterns, clinical aspects and occupational exposure were inconsistent with the present conception of silicosis. In this group, unlike the cases described by Sander and Enzer, the men were known to have had some exposure to free silica, although repeated sampling of air-borne dust revealed the concentrations to be within safe limits. The composition of the dust before fractionation was as follows:

	Sample 1, Percentage	Sample 2A, Percentage
Total SiO_2	6.5	8.9
Free SiO_2		
Quartz	3.1	3.9
Cristobalite	0.1	0.3
Tridymite	0.0	0.0
Fe_3O_4	73.2	67.4
Mn	5.9	7.8
Corundum	1.5	4.1
Carbonates	trace	trace
Rutile (titanium dioxide TiO_2)	trace	trace
Loss on ignition	6.2	3.2

The high iron content of the samples of air, the relatively low percentage of free silica with negligible amounts of the most active forms cristobalite and tridymite, together with the lack of significant clinical findings, did not seem to constitute a definite hazard, certainly not enough to produce the rapidly developing nodulations observed in some employees' roentgenograms. If the markings were due to iron pigmentation, however, there appeared to be enough iron oxide present in finely divided form to cause it.

Early in 1945 we inaugurated an experimental study on the effect of air-borne grinding dust on laboratory animals under the direction of the late Dr. L. U. Gardner at the Saranac Laboratory, Saranac Lake, N. Y. An interim report after eight to ten months' exposure indicates that while faint diffuse dust pigmentation exists grossly in the lungs of guinea pigs and white rats, microscopically only scattered inactive dust cells appear without evidence of fibrosis. Roentgenograms of the chests of rabbits exposed to inhalation of dust for the ten month period were essentially normal. In animals infected experimentally with tuberculosis, the spread of the disease was not accelerated by the inhalation of this dust during an eight month period.

It is emphasized that these observations are only preliminary. The studies are continuing, and a complete report will be made after there has been sufficient exposure to demonstrated valid results. The tentative assumption that this dust causes reaction similar to that seen in exposures to other inert dusts is of definite interest in this presentation.

One of the well established facts about silicosis is its tendency to provide a fertile field for the development of tuberculosis. While this is undoubtedly true, some observers feel that in certain instances its importance may have been overemphasized. Dayman, however, in June 1946 published case reports on 4 persons as evidence that silicosis can exert a harmful effect on resistance to tuberculosis even when generalized pulmonary fibrosis due to free silica is so slight that evidence of it is meager or entirely lacking on technically satisfactory roentgenograms.

Observation of grinders and burners in the foundry industry under discussion reveals a very apparent lack of clinical symptoms and absence of conglomerate shadows in the roentgenogram. The incidence of tuberculosis is low and progression of infection, when it does appear, is not impressive. These employees seldom complain of shortness of breath, the cardinal symptom of silicosis, even though the roentgenogram reveals definite evenly distributed, fine nodulation. Stippling may appear after comparatively short periods of exposure, two to six years in some cases, but when once established there is little change in subsequent roentgenograms in spite of the fact that the occupational environment has not changed appreciably.

Consideration of the evidence accumulated up to the present provides substantial reason for the belief that the roentgenographic observations in this group of workers represents siderosis and not, as it is still being diagnosed, silicosis.

The following cases are presented to support this view and to demonstrate the unusual course of superimposed infection in the presence of nodulation hitherto presumed to be silicotic.

REPORT OF CASES

Case 1.—T. J. P. operates a grinding lathe in the machine section of the plant where large manganese steel castings ranging from 500 pounds (227 Kg.) to several tons in weight are ground sometimes to tolerance of 0.002 inch (0.0508 mm.). Vitrified abrasive wheels are used, and the point of contact is kept wet with water containing a soluble oil. The employee has worked on this particular job for thirty-one years without losing time except for a period of two weeks about twenty-three years ago, with what was diagnosed as pleurisy. Two years ago he had a hernia repaired and was away from work for two months. The operation was performed with the patient under local anesthesia, and no symptoms referable to his lungs occurred. Other than these two periods he has never lost a day's time because of illness. He states that he "feels like a million." His appetite is good and he has no discomfort following meals except occasional spells of mild indigestion.

Examination revealed a well developed, well nourished white man, 55 years old. He presented a healthful, robust appearance. His height was 6 feet 1 inch (185.4 cm.) and he weighed 220 pounds (99.8 Kg.). Blood pressure was 130 systolic and 90 diastolic. There was no evidence of disease of ear, nose or throat and no enlargement of the thyroid gland. Examination of the heart indicated no disease. The pulse rate was 80 per minute, regular and of good volume. The chest was symmetric, breath sounds were normal throughout and there was no other manifestation of disease. The remainder of the examination revealed no abnormality except for a rather large, easily reducible, recurrent inguinal hernia on the left side which appeared to be adequately controlled by a truss.

Roentgenograms of the chest were made for this worker in 1933, 1934, 1936, 1942, 1943, 1944, 1945 and 1946. The roentgenogram made in 1933 showed evidence of rather extensive nodulation throughout both pulmonary fields, with mottling, interpreted as tuberculous infestion, involving the entire upper lobe of the right lung. The diagnosis at that time was first degree silicosis with active infection. A roentgenogram in 1934 was interpreted in a similar way with the addition of suggestive cavitation. In 1936 the roentgenogram showed considerable clearing of the condition in the upper lobe of the right lung, the dense mottling being replaced by hard linear shadows. By 1942 not much change was noted except that there seemed to be slightly more fibrosis of the infection with perhaps more accentuation of the nodulation. Subsequent roentgenograms, including stereoscopic views in 1946, demonstrated gradual clearing of the infection and replacement by a linear scar. This change occured while the man was continuously subjected to the same dust exposure. A Vollmer patch test done recently resulted in a definite positive reaction. Three successive examinations of concentrated sputum were negative for acid-fast bacilli.

The course of the infection in this case is contrary to the usual progression of tuberculosis, assuming that the nodulation observed in the roentgenogram is due to silicosis. On the other hand, it is compatible with siderosis.

Case 2.—F. M. finishes rough manganese steel castings weighing from 500 to 10,000 pounds (4,535 Kg.). The work is done with a swing frame grinder (fig. 2) and the employee has worked on this same job for the past thirty-four years. He has had no other occupation. He has no complaints and states that he feels well.

Physical examination revealed a well developed white man of 64 years, 5 feet 10 inches (177.8 cm.) tall, weighing 170 pounds (77.1 Kg.). His temperature was 98.6, pulse rate at rest was 76 per minute, after exercise was 96 per minute and two minutes later was 76. The systolic blood pressure was 158 and the diastolic 80. There was some enlargement of the turbinal bones, also pyorrhea and dental caries. Examination of the heart and lungs revealed no abnormality. No other significant physical defects were noted except an enlarged inguinal ring on the right side and superficial varicosities on the left leg.

Roentgenograms of the chest were made in 1933, 1934, 1936, 1942, 1943, 1944, 1945 and 1946. Nodulation was evident in the first three of these and was diagnosed as uncomplicated silicosis. The 1936 roentgenogram suggests an area of beginning infection in the upper paravertebral area of the left lung. In the 1942 roentgenogram this was definite as a circumscribed density. Subsequent annual roentgenograms show no change except that possibly the shadows are slightly more dense and circumscribed. No change has occurred in the nodulation.

A Vollmer patch test was done recently which elicited a postive reaction. Concentrated sputum on three successive days was negative for acid-fast bacilli.

In this series of roentgenograms, a shadow strongly suggestive of developing tuberculous infection appeared on a background interpreted as silicotic and has remained constant over a period of ten years in spite of continuous exposure.

Case 3.—P. J. H. worked in a coal mine for six years before coming to his present location. He was employed as a burner at this plant for thirteen years. The operation consisted of burning off gates, fins and other projections on unfinished castings with an acetylene torch. On occasions he also did some welding on small surface defects. The castings were usually placed on the floor (fig. 4) so that the blast from the oxyacetylene torch stirred up accumulated dust along with fume from the operation itself. Be-

cause of the roentgen findings, he was put at outside working driving a truck and has not been exposed to dust for the past four years. He gives a history of pneumonia on two occasions, the last attack occurring in February 1942. In March 1943 he was operated on for an inguinal hernia on the left side and in February 1946 he suffered an acute infection of the respiratory tract, which cleared up without complications. He has gained weight and states that he feels better than he has for years.

Examination disclosed a white man of 60 years, 5 feet, 7½ inches (171 cm.) in height, weighing 153 pounds (69.4 Kg.). The systolic blood pressure was 165 and the diastolic was 90. His temperature was 98.6 F., his pulse rate 70 per minute and his respirations 14. The lower teeth were in poor condition but the upper teeth were replaced by a denture. Examination of the heart revealed no evidence of disease. The breath sounds were roughened but otherwise the lungs were normal. The remainder of the physical examination showed no significant abnormalities.

Roentgenograms of the chest were made in 1934, 1942, 1943, 1944, 1945 and 1946. The 1934 roentgenogram showed a diffuse nodulation without evidence of infection. This was classified as first degree silicosis and was reclassified to second degree nodulation in 1942. Some mottling in the upper lobe of the right lung was noted at this time, and tuberculous infection was suspected. In 1943 the same condition was again observed and was rechecked with stereoscopic roentgenograms. Subsequent roentgenograms have shown no change except more organization of the infection.

Samples of sputum taken every other day for six occasions were all negative for acid-fast bacilli. A patch test and also two intradermal injections of old tuberculin (0.1mg. and 1.0mg.) gave negative results. The blood sedimentation rate was 2 mm. per hour. The Wassermann and Kahn reactions were also negative.

The similarity of the roentgenographic observations in this case and in the preceding one are rather remarkable. Both employees work in the same industry, although their specific jobs are different. They have been employed at separate locations which are over 1,000 miles (1,600 kilometers) apart, but the operations in both plants are the same, so that both men have had similar types of dust exposure. The negative reactions to the tests for tuberculosis in this case suggest that the shadows observed in the roentgenogram are not caused by the tubercle bacillus. This again emphasizes the need for careful evaluation of all the clinical data before making a positive diagnosis in any case demonstrating evidence of occupational fibrosis. The fact remains however, that a condition suggestive of infection which developed on a nodular background has remained relatively stationary for the past four years, an event which is not consistent with the usual course of silicotuberculosis.

Case 4.—J. W. works in a different plant from the men in the preceding cases. His job consists of grinding gray iron castings which are rather free from sand, so that his actual exposure to free silica has been negligible. There is considerable dust containing fair amounts of iron oxide in the atmosphere. This employee has been in the same location as a chipper and grinder for thirty-six years. At the time of his examination he stated that he did not "feel any too well" and complained of some cough and shortness of breath. His appetite was good, however, and he had not lost weight.

Physical examination showed a white man 63 years who did not appear ill. He was 6 feet 1½ inches (187 cm.) in height and weighed 175 pounds (79.4 Kg.). His blood pressure was 114 systolic and 64 diastolic. His temperature was 99 F., his pulse rate 68 and respiration rate 14 per minute. The pulse was regular and of good volume. It increased to 96 after exercise and returned to 72 after two minutes' rest. Examination of the chest showed no evidence of cardiac disease and the lungs were normal except for a small area of decreased resonance in the left intraclavicular space. There were no other abnormalities noted with the exception of small superficial, bilateral varicosities. The employee's weight of 175 pounds at this examination, however, represents a loss of 10 pounds (4.5 Kg.) since 1944.

Roentgenograms of the chest were made in 1933, 1934, 1936, 1939, 1943, 1944, 1945, 1946 and 1947. In 1933 the roentgenogram was interpreted as first degree silicosis with infection, presumably tuberculous, in the upper third of the right lung. No pronounced change was noted in succeeding roentgenograms until 1939, when infection appeared in the upper lobe of the left lung. By 1943 the infection in the upper lobe of the right lung was more diffuse with a more characteristic appearance of pleural thickening, while the mottling in the upper lobe of the left lung suggested some increase in the pathologic process. Subsequent roentgenograms in 1945, 1946 and 1947 have shown no definite change except possibly some slight increase in density of the shadows previously noted.

As a result of the abnormalities noted in earlier roentgenograms, this employee was examined very thoroughly by several competent specialists, all of whom were agreed that the shadows in the roentgenograms represented tuberculous infection. The man was approached about entering a sanatorium and was strongly urged to to do, both by management and by his family physician. He stated that he felt quite well and did not want to enter a sanatorium and could see no adequate reason why he

should. He has continued working under observation since that time and has been a steady, uncomplaining producer.

Recently a Mantoux tuberculin test elicited no reaction to first strength purified protein derivative, but a slight positive reaction was obtained with the purified protein derivative of second strength.

The roentgen observation in this case again failed to demonstrate the anticipated course of infection in the presence of silicosis.

SUMMARY

Findings in the roentgenograms of the chests of 4 employees in the foundry industry are presented to demonstrate the unusual course of suggestive tuberculous infection in the presence of nodulation hitherto presumed to be due to silicosis. The progress of the disease is inconsistent with the usual picture of tuberculosis superimposed on silicosis, both from the clinical and from the roentgenographic aspects. Occupational exposure as demonstrated by industrial hygiene surveys in the plants where these roentgen patterns were produced does not appear to be adequate to produce the extensive nodulations observed but does seem to be sufficient to cause siderosis. The unorthodox behavior of both infection and nodulation, in spite of continuous exposure, substantiates the impression that the roentgenographic appearance is the result of the deposition of iron pigment (siderosis) rather than reaction in pulmonary tissue due to contact with free silica.

Reprint from Occupational Medicine — July 1947

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3. Pendergrass, E. P., and Leopold, S. S.: Benign Pneumoconiosis, J. A. M. A. 127: 701-705 (March 24) 1945.

4. Harding, H. E.: Radiographic and Histological Appearances of the Rat Lung After Intratracheal Injection of Rouge (Ferric Oxide), Brit. J. Indust. Med. 2: 32-35 (Jan.) 1945.

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MISINTERPRETED CHEST LESIONS

Combating tuberculosis involves periodic mass examination to detect unsuspected or incipient cases, and in factories, large offices, and schools — wherever, in fact, large numbers of people could be mobilized for such checking — the practice has been fruitful in finding cases and saving lives. To speed the task of screening a thousand children in a public high school or a stream of job applicants in a plant, simple tuberculin tests have been applied. The most familiar test involved injection of tuberculin beneath the skin; a later test pressed a patch of tuberculin-saturated filter paper against the skin under adhesive tape; either test would presently produce an allergic red mark on the skin of persons whose further examination was indicated. More recently X-ray devices have been improved for use in mass screening; they swiftly make small films of the chest and have the advantage of providing a record useful sometimes for later comparisons. They make clear disclosures of any calcified lesions in the lungs and such lesions have been regarded as an indication of tuberculosis, already healed or otherwise.

The recent tremendous increase in the use of X-ray examinations in the search for hidden cases among both civilians and military populations has gradually brought out new and unexpected facts: the number of people with pulmonary calcification varies widely in different sections of the country — 27% in Ohio, 83% in Tennessee; it is apparently very high in Missouri, Wisconsin, Illinois, Kentucky, Mississippi, Arkansas and Louisiana. And its frequency runs far out of line with the actual incidence or local death rates of tuberculosis! In one study of lesions found by X-ray, over one-half were negative to tuberculin. Indeed, there are areas with a high incidence of calcified lesions which show a low death rate from tuberculosis and vice versa. Numerous cases, rated as tuberculous by the x-ray, have proven to be negative upon further examinations including the tuberculin test.

Such discrepencies led to search among the other known causes of calcified lesions and a disease called histoplasmosis is now indicated if not yet convicted.

Until recent years histoplasmosis was a word familiar only to a limited group of physicians.

It is the name of a supposedly rare and fatal disease reported in only a few instances in this and other countries.

There are now indications that histoplasmosis in a benign form may be quite widespread, causing, or related to, certain calcified lesions hitherto assumed to be tuberculosis. The disease is caused by a fungus from which can be made an extract, histoplasmin, which, in turn, can be produced and used as a testing material like tuberculin. Histoplasmin for tests is not yet on the market but enough has been used to reveal that numerous people with calcified lesions are tuberculin-negative and histoplasmin-positive. The logical hypothesis is not yet established but confirmatory epidemiological statistics have been accumulating.

Confidence of industry in the value of mass case-finding for tuberculosis should continue; the above findings merely emphasize the familiar fact that if X-ray is used as the first step in case-finding for tuberculosis, persons found with calcified lesions should not be labeled as having tuberculosis without further diagnostic evidence.

Reprint from *For Instance*, published by American Cyanamid in March, 1946.

PULMONARY CALCIFICATIONS

Additional evidence is now available to support the concept of etiologic relation between nontuberculous benign pulmonary calcifications and a benign form of histoplasmosis. Zwerling and Palmer[1] report a study of pulmonary calcifications made as a cooperative project by the National Tuberculosis Association, the United States Public Health Service and a number of schools of nursing. Histoplasmin and tuberculin skin tests and roentgenograms were available for 6,199 student nurses in eight large cities. The incidence of calcification closely paralleled a positive reaction to histoplasmin; such a parallel with positive tuberculin reactions was not apparent in the material studied. Pulmonary calcification was found in 698 nurses, of whom 494 were histoplasmin positive, 109 had positive reactions to both tuberculin and histoplasmin, 57 were tuberculin positive and 38 had negative reactions to both histoplasmin and tuberculin. Geographically the incidence of calcifications varied widely. Four times as many student nurses in Kansas City, Mo., showed calcification as in Philadelphia, and more than four times as many were sensitive to histoplasmin. An attempt was made to differentiate between calcification presumably due to tuberculosis and that presumably due to histoplasmosis, but any characteristic feature of the lesions was noted which would be of value in determining the etiologic factor. Occasionally, instances of scattered multiple bilateral calcification, including the miliary type, were seen. Since it was impossible to distinguish between the calcification, the authors infer that the roentgenographic appearance of the begnign form of histoplasmosis can resemble tuberculosis during the active phase of the infection. The recovery of the tubercle bacillus and consideration of the tuberculin reaction were therefore considered essential for the final diagnosis of pulmonary tuberculosis. Infection with the fungus Histoplasma capsulatum probably is widespread and, although usually benign, may be responsible for most instances of scattered multiple bilateral calcifications.

From a study of 1,457 American Indian children following tuberculous infection. High and Zwerling[2] concluded that the frequency with which calcification develops in tuberculosis varies directly with the age at which the tuberculous lesions begin. Calcified pulmonary foci were found most frequently during the second and third years after the lesion was first observed. In the youngest age group (under 5 years of age) calcification followed tuberculosis in 76.5 per cent of the cases. The rate declined progressively in older children, and calcification was present in only 2.4 per cent of the cases in which the onset of tuberculosis was between the ages of 15 and 19.

High, Zwerling and Furcolow[3] reviewed 113 cases of disseminated pulmonary calcification collected from various sources, mostly midwestern school children and student nurses, in whom at least five calcareous deposits were noted in each lung field. Of the 108 patients who received tests with tuberculin and histoplasmin, none reacted to tuberculin alone, but 93.5 per cent of them reacted to histoplasmin; only 4 did not react to histoplasmin.

From the Fels Research Institute, Sontag and Allen[4] report a study of 200 normal south-

western Ohio children. Chest roentgenograms were made on most of them one month after birth and every six months thereafter for the first two years and at yearly intervals from then on. They came from all economic levels and from all types of homes. The serial roentgenograms made possible not only a diagnosis of the presence or absence of pulmonary calcifications but a study also of the progressive changes in the lung from the time of the initial lesion throughout the period of calification. The children were physically examined every six months and were tested intradermally with purified protein derivative of tuberculin and histoplasmin; if both tests were negative when pulmonary calcifications were present, the child was tested with blastomycin and with extract of Haplosporangium parvum. Of 170 children 1 year of age or older, 15.3 per cent reacted to tuberculin and 44.7 per cent to hisatoplasmin. Thirty-three of the 103 with pulmonary calcifications reacted to neither tuberculin nor histoplasmin. Two of the 33 reacted positively to blastomycin and to haplosporangin. The infection which produced these calcifications certainly occurs often at an early age. In 9 cases in this series the soft tissue changes were present as early as 10½ months of age. The calcification itself often appeared early; it was apparent in 9 children in the first twenty-four months of life and in 45 at or before the age of 4 years. These studies strongly support the hypothesis that pulmonary calcifications very frequently are caused by whatever agent produces sensitivity to histoplasmin, at least in some parts of the United States.

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2. High, R. H., and Zwerling, H. B.: Variation with Age in Frequency of Tuberculous Pulmonary Calcification, Pub. Health Rep. 61: 1769 (Dec. 6) 1946.
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4. Sontag, L. W., and Allen, J. E.: Lung Calcifications and Histoplasmin-Tuberculin Skin Sensitivity, J. Pediat. 30: 657 (June) 1947.

Reprint of Editorial from the November 15, 1947 issue of the Journal of the American Medical Association.

Contributors to the Benevolence Fund may Clip and use this form

Dr. Harold M. Camp, *Secretary,*
Illinois State Medical Society,
Monmouth, Illinois.

I would like to contribute $..... to the Medical Benevolence Fund of the Illinois State Medical Society.

My check is enclosed in the above amount.

Signed:.....

.....

(*Address*)

Make checks payable to: Committee on Medical Benevolence.

Council Meeting Minutes

MEETING OF THE COUNCIL, DECEMBER 7, 1947

The regular December meeting of the Council was held at the Palmer House, Chicago, on Sunday, December 7, 1948. Those present were Irving H. Neece, Percy E. Hopkins, L. J. Hughes, Darwin B. Pond, Oscar Hawkinson, Leo P. A. Sweeney, Harry M. Hedge, Wade C. Harker, Charles P. Blair, Ralph P. Pearis, Walter Stevenson, Charles H. Hulick, Charles O. Lane, Harlan English, G. C. Otrich, James H. Hutton, Robert S. Berghoff, Roland R. Cross, Frederick H. Falls, John A. Rogers, Mr. James C. Leary, Mr. John W. Neal, Raleigh C. Oldfield, Maurice M. Hoeltgen, Edwin S. Hamilton, Harold M. Camp and Frances C. Zimmer.

There being no alterations or corrections, the minutes of the last meeting were approved as mailed to the members.

The Secretary read his report outlining the proposed codification of Illinois laws pertaining to health and medical care and its subsequent publication and distribution to all members of the society. Reference was made to the meeting of the Committee on Scientific Work and the tentative plans for the 1948 annual meeting programs, all of which are subject to Council approval. It is planned to have three full days of general assembly programs scheduled, and no scientific meetings of individual sections. An executive committee was selected from the section officers to assume responsibility for lining up the programs with each section officer submitting proposed speakers and subjects for their final approval. Other matters relative to the annual meeting were presented.

Dr. Neece reported as President telling of many meetings he has recently attended in his official capacity. One of these the annual meeting of the Medical Society of Wisconsin. A letter had been received from the Executive Secretary of the Illinois Nurses Association relative to a special committee selected to aid in the recruitment of student nurses, this in cooperation with the American Hospital Association. They request that a member of this Society be selected to work with their committee.

Dr. Hopkins reported as President-Elect, telling of recent meetings he has attended, including two post graduate conferences where he and the Secretary discussed the Illinois Plan for Pre-payment care program which is now in operation. He believes this subject should be presented at all of the conferences, and recommends that they be scheduled as a part of the afternoon program, rather than in the evening.

Stevenson, as chairman of the Council stated that he would report later on recommendations of the executive committee which met the previous evening.

REPORTS OF INDIVIDUAL COUNCILORS

Harker told of the confusion on the part of physicians who have received invitations to join several new organizations which have been recently organized, and recommended that inquiries on the subject be withheld until after the Interim Meeting of the A. M. A. in January, where no doubt some consideration will be given to these groups, and their functions.

Blair stated that physicians in his district were interested in the prepayment care plan, and have asked many questions on the subject.

Peairs and Hughes reported on the post graduate conferences held recently in their respective districts, at Lincoln and Rockford. Told of the increasing interest in these conferences and would like to see them continued in coming years.

Falls told of the plan under consideration to study maternal deaths in the down-state areas, this already being done in Cook County. This to be done under supervision of his Committee on Maternal Welfare, if approved by the Council.

Cross reported as Director of the State Department of Public Health giving a summary of his progress report which recently appeared in the Illinois Medical Journal. He discussed the increasing interest in county health units, cancer diagnostic centers, the proposed tuberculosis hospitals to be

built at Mt. Vernon and Savanna, premature stations at Peoria and Springfield, and several other projects under way in his department.

Blair reported as chairman of the Educational Committee, telling of recent activities. Increasing duties of the office in Chicago were stressed. The Society exhibit was exhibited at the National Farm Show, where much interest was manifested. The brochure "Horses and Doctors" was passed out to the farm groups, especially teen age boys and girls who were very much interested. Another brochure was developed "The Doctor and His Medical Society" which is proving quite popular, and there is an unusual demand for these brochures. By proper action, the report was approved.

Berghoff reported as Councilor at Large, and as Chairman of the Scientific Service Committee and the Committee on Post Graduate Services. Referred to the tuberculosis hospitals to be constructed down state and also the one of 500 beds to be erected in Chicago; the site recently selected for the matter being in the newly created medical center on the West Side where ample acreage has been assigned. Referred to the increasing demands for services on the part of component societies for speakers and aid in setting up their programs. Also the increasing interest in post graduate conferences, 12 of which are scheduled for the fiscal year with the place and date selected now for the remaining six during the year. Discussed proposed changes in the manner of conducting these conferences.

Hedge reported as chairman of the Journal Committee, telling of the sending out to some 18 or 20 printing concerns, copies of the Journal and informative data in the solicitation of bids for printing for the coming year. Most concerns unwilling under present conditions to take more jobs, and the committee recommended the Wayside Press at Mendota, the printers of the journal during the past 8 years. The contract has been awarded.

Hutton told of the selection of the winners of the awards for the best scientific articles published in the Journal from July 1946 to June, 1947. The award for the best written article from a literary standpoint was given, then as there was a tie for the paper reporting outstanding original work, the Council was requested to authorize duplicate awards. The winners and subjects will be announced in the January Illinois Medical Journal. Hutton told of the work of the Committee on Medical Service and Public Relations, and of their recent meetings. A group of principles has been approved which will be ready for distribution soon.

Hopkins reported as chairman, Voluntary Prepayment Care Plans, referring to two recent meetings of committee with representatives from insurance companies in the endeavor to get additional companies interested in the plan and to submit policies meeting the requirements for approval. Several large insurance companies now preparing their policies and will no doubt have same approved in near future. Hopkins also reported as chairman of Medical Advisory Committee to Veteran's Administration, telling of recent meeting in Chicago with Gen. Paul R. Hawley present. Seems advisable to renew contract for care of veterans with service connected disabilities for the year ending June 30, 1948. By proper action, the officers of the Society were instructed to submit the signed contract to Veteran's Administration.

Neal stated that the new principles referred to by Hopkins would be sent to a list of large insurance companies, the list being prepared and a number of these had been writing to see how soon their policies could be submitted. Believes present principles are excellent, and in keeping with present day trends along this line. Desires to send legislative men, state and national, from Illinois, the two brochures distributed at the National Farm Show. Permission given, by proper action.

Hawkinson discussed plan for building up the medical benevolence fund. Told of unusual interest of his branch society, and their efforts to get subscription from every member. The response to date was reported. Number of recipients gradually increasing, and he believes this one of the highly important projects, this one helping the doctor himself, or members of the family of former members. Urges other councilors to stimulate drive for subscriptions to the fund in all parts of the state.

By proper action, Mr. John W. Neal was selected as general counsel for the Society for the next year.

Oldfield reported progress, as chairman of the Committee on Arrangements for the 1948 annual meeting. His committees have been selected, and are being notified of their appointment, as well as their respective duties. Gives assurance of his desire to do everything possible to make this annual meeting a highly successful one.

Hoeltgen, as vice-chairman, also stated that he desires to render all possible cooperation likewise, and he approves the recommendations of Dr. Oldfield, as well as his appointments to committees.

English reported as chairman of the Committee on Rural Medical Care telling of recent activities, and of meetings with the Illinois Agricultural Association. Reported the proposed plan to develop a loan fund, in cooperation with the A.A.A., both groups to select three members of a joint committee to aid in providing medical education to native born boys, especially in the Southern part of the state. They should be ready to enter medical schools, be approved by their respective Farm Bureau and County Medical Society, then given a loan to finance their actual medical education.

There should be no loss to the Society, as the loans will be made at a low rate of interest, and the boys agree to return to their native counties to practice until the loan is repaid. A contract, legally

drawn up has been prepared, and was submitted to the Council for approval.

Motion, English-Hamilton-Blair; that the Illinois State Medical Society cooperate with the Illinois Agricultural Ass'n in the establishment of a medical student fund for native county born boys to study medicine in an approved medical school in the amount of not more than; $2,000.00 the first year; $4,000.00 the second year; $6,000.00 the third year; $8,000.00 the fourth year to a maximum of $50.000.00 over a ten year period between 1948 and 1958. Motion carried. It was brought out in the discussions that with the repayment of the loans, this could be made a program to be carried on if needed over a long period of time without additional appropriations.

John A. Rogers, as Director of the Illinois Division, American Cancer Society told of their plan to have conferences throughout the state on diagnosis of cancer, these preferred to be scheduled in all councilor districts, and they desire to have the cooperation of individual councilors and component county medical societies. All expenses to be paid by the Cancer Society. Asks the councilors to aid in determining the best city in the districts for these conferences. They desire to cooperate fully with the State Medical Society and ask approval of the plan, and assurance of a desire to cooperate on the part of the councilors and the Society as a whole. This project was previously presented to the Council, and approved with the request that the Society Committee on Cancer Control of which Warren H. Cole is chairman, aid in arranging the Conferences.

Dr. Rogers was assured that the project was approved by the Council and that the services of the individual councilors, the Educational committee Scientific Service and Post Graduate Committees would cooperate in making the necessary arrangements. It was decided that a letter would be sent immediately to the Councilors, county society secretaries and chairmen of the cooperating committees, giving the information and expressing the desire that they give full cooperation to the proposal.

Dr. Pond reported as chairman of the Advisory Committee to the Womans Auxiliary, telling of their recent activities, and their desire to render all possible assistance in the medical benevolence fund drive, the collection of historical data for the Society, and would welcome additional responsibilities at any time. Plans for their annual meeting were discussed and they were assured that deficits incurred from the meeting, would be paid by the Society, as has been done in the past.

Motion; English-Sweeney, that John W. Neal be authorized to prepare a codification of Illinois laws pertaining to health and medical care. Motion carried. Motion; Hedge-Neece that Council approve actions taken by Committee on Scientific Work, relative to scientific programs for 1948 annual meeting. Motion Carried. Motion; English-Lane, that list of candidates for Emeritus and Past Service Membership as presented by Secretary, be approved and usual certificates and/or/cards be issued. Motion carried.

Bills as audited by Finance Committee approved by proper action. (English-Lane). Council adjourned to meet in regular session January 18, 1948.

Harold M. Camp, M.D.
Secretary



The basis for the concerted Scandinavian mass BCG vaccination is the importance tuberculosis plays even today as an endemic disease — the commonest chronic disease in people between 15 and 30 years. Approximately 50 per cent of this age group do not react tuberculin. These non-reactors have proved more susceptible to progressive tuberculosis disease when infected than those in whom a positive tuberculin reaction indicates a previous infection. Konrad Birkhaug, M.D., Am. Rev. Tbc., Mar., 1947.

Cincinnati may be able to claim credit for having been the first American city to make tuberculosis a "reportable" disease. The distinction now is claimed by both Boston and St. Louis. . . . In the annual report of the (Cincinnati) Health Department for 1897 is a copy of resolutions adopted by the Board of Health requiring physicians to report all cases of tuberculosis. This action is believed to antedate similar action in Boston and St. Louis. Ohio Pub. Health, Oct., 1947.

News of the State

PERSONALS · COMING EVENTS · MARRIAGES · DEATHS

COOK COUNTY

Personal.—Dr. Philip Thorek, Chicago, addressed the Muskegon County (Mich.) Medical Society, November 2, on "The Acute Abdomen."

Personal.—Dr. Samuel J. Taub lectured before the American College of Chest Physicians in Milwaukee, October 5, and before the faculty and students of the National University of Mexico, Mexico City, October 18; both talks were on asthma.

New Weekly Bulletin.—"This Week in Chicago Medicine" is the title of a new mimeographed weekly bulletin issued by the Chicago Medical Society and supplementing its regular weekly publication. The first issue of the new publication made its appearance the week of December 7. The deadline for receipt of material is the Thursday morning preceding each date of issue. Aimed to serve as a directory of medical activities of interest to physicians, the present mailing list covers all medical libraries and medical schools in the United States, all hospitals in Illinois as well as those in large cities in states adjacent to Illinois, and all city and county medical societies throughout the country that have permanent headquarters. A program is now being developed whereby all hotels in the Chicago area will receive "This Week in Chicago Medicine" for bulletin board display. The first issue covers meetings of specialty societies, the address of local medical libraries and medical schools, the date of the Fourth Annual Clinical Conference of the Chicago Medical Society, a directory of Cook County hospitals, and the time and place of seminars, scientific movies, and clinical and pathologic conferences planned by the various hospitals in the Chicago area.

Physicians visiting Chicago are urged to call or visit the office of the Chicago Medical Society for information concerning local activities. The address is 30 North Michigan Avenue and the telephone number Central 3026.

Industrial Health Plan Launched.—An educational program designed to raise the standards of industrial health and medicine among 1,500,000 workers in Chicago and Cook County was inaugurated January 1. Known as the Chicago Industrial Health Plan, the program is supported by more than thirty community groups, including all health agencies, major labor unions, management groups and welfare associations. Lester Seelig, president of the American Transportation Company, is general chairman; Dr. Frederick W. Slobe, chairman of the Committee on Industrial Medicine, Chicago Medical Society, is chairman of the executive committee, and Alexander Rlpchan of the Health Division of the Council of Social Agencies is secretary. Labor organizations are to name a co-chairman to serve with Mr. Seelig. Financed with $15,000 contributed by the state, the American Red Cross, the Tuberculosis Institutc, and the American Cancer Society, the plan will have as full time executive director Percy Shostac who directed a similar program for Brooklyn. The program will seek to carry out recommendations made in 1946 by the U. S. Public Health Service and published as the Chicago-Cook County Health Survey, newspapers reported. Mr. Shostac will supervise publication of a monthly paper on health information to be distributed free for six months to factories in this area. Supporters of the plan hope that industries later will contribute to the educational program. The health survey disclosed that industrial hygiene programs are well carried out by most large industries, but that workers in plants employing 100 or fewer receive almost no medical services.

New Head of Radiology Department.—Dr. Edward L. Jenkinson, senior director of the department of radiology at St. Luke's Hospital and president of the American Board of Radiology, has becn appointed chairman of the department of radiology at Northwestern Univcrsity Medical School, succeeding Dr. James T. Case. Dr. Jenkinson graduated at St. Louis University School of Medicine in 1915.

"Where We Stand Today in Medicine".— Presentations by Fellows of the Institute of Medicine or recent contributions and current thought in the basic sciences and in the various branches of clinical medicine, arranged by the Committee on Postgraduate Activities.

The meetings will bc held on thc 2nd and 4th

Friday afternoons of each month, beginning January 9, 1948, promptly from 4:45 to 5:30 o'clock in the Assembly Room of the Institute. They will be open without fee to all physicians and allied professional groups. A question period after the presentations will be conducted at the discretion of the individual speakers.

January 9—"Life Expectancy After Radical Removal of Carcinoma of the Large Bowel Based on Pathological Considerations", Vernon C. David, Rush Clinical Professor of Surgery, University of Illinois College of Medicine.

January 23—"Gastric Vagotomy in the Treatment of Peptic Ulcer", Lester R. Dragstedt, Professor of Surgery, and Chairman, Department of Surgery, The University of Chicago.

February 13—"The Role of Sex Hormones in the Differentiation of the Sexes and in Sexual Abnormality", Carl R. Moore, Professor of Zoology, The University of Chicago.

February 27—"Pneumonoconiosis, Emphysema, and Right Heart Failure", Norbert Enzer, Director of Laboratories, Mount Sinai Hospital, Milwaukee.

March 12—"Experimental Fenestration of the Labyrinth and its Bearing on the Human Operation", George E. Shambaugh, Jr., Assistant Professor of Otolaryngology, Northwestern University Medical School.

March 26—"Race and Disease", Julian H. Lewis, Director of Research, Provident Hospital, Chicago.

April 9—"Recent Advances in Gynecology", Ralph A. Reis, Assistant Professor of Obstetrics and Gynecology, Northwestern University Medical School.

April 23—"New Electrodiagnostic Methods in Peripheral Nerve Lesions", Lewis J. Pollock, Professor of Nervous and Mental Diseases and Chairman, Department of Nervous and Mental Diseases, Northwestern University Medical School.

May 14—"Endoscopic Photography in Otolaryngology and Bronchoesophagology", Paul H. Holinger, Assistant Professor of Otolaryngology, University of Illinois College of Medicine.

May 28—"Intra-Abdominal Masses Accurring in Children", Egbert H. Fell, Associate Professor of Surgery, University of Illinois College of Medicine (Rush).

Tuberculosis Hospital Advisers Named.—Mayor Kennelly on November 18 appointed a board of six physicians to serve as medical advisers to the Municipal Tuberculosis Sanatorium. The physicians are Dr. Robert G. Block, associate professor of medicine, University of Chicago School of Medicine; Dr. Morris Fishbein, Editor of The Journal of the American Medical Association; Dr. N. C. Gilbert, professor of medicine, Northwestern University Medical School; Dr. James H. Hutton, chairman of the Committee on Medical Service and Public Relations, Illinois State Medical Society, and Dr. Henry L. Schmitz, associate clinical professor of medicine, Loyola University Medical School.

Hospital News.—A $250,000 addition to the Babette and Emanuel Mandel Clinic is under way at Michael Reese Hospital. Fifth and sixth floors are being built, newspapers reported. The fifth will house a new pediatrics clinic, a playroom for health education and an addition to the dietary department. The sixth floor will be devoted to psychiatric clinics, a psychologists' laboratory, a psychiatric social service students unit and observation-treatment quarters. Physicians volunteer their services to the clinic.

Meeting of Interns and Medical Students.—The Association of Interns and Medical Students conducted its annual convention at the Chicago Professional Colleges of the University of Illinois on December 27-29. Sessions were held in the Chicago Illini Union.

Dr. A. C. Ivy, vice president in charge of the University of Illinois for the Chicago Professional Colleges, spoke at a luncheon on Saturday, December 27. Several other distinguished leaders in the field of medicine, including Drs. Walter L. Palmer, head of the department of medicine at the University of Chicago, Warren H. Cole, head of the department of surgery at the University of Illinois, and Samuel Soskin, director of medical research at Michael Reese hospital, Chicago, presented clinics and seminars.

Open sessions were devoted to addresses and symposia on the subjects of medical education and student welfare, intern and resident welfare and education, extension and medical care, medical economics, and international health organization.

Panel discussions were conducted on several subjects, including the question of selection of interns and medical students. The question of discrimination was a featured panel.

CMS Devotes Session to Tuberculosis.—The Chicago Medical Society devoted its meeting, November 19, at the John B. Murphy Memorial Auditorium to a symposium on tuberculosis with the following speakers:

Dr. Jerome R. Head, Nonmedical Treatment of Tuberculosis.

Dr. R. L. Midgley, chief surgeon, Devon County Sanitarium, Devon County, England, Surgery and Chemotherapy of Tuberculosis in England.

Dr. H. McLeod Riggins, physician in charge of Streptomycin research, New York State Hospitals, The Chemotherapy of Tuberculosis.

Dr. Francis J. Weber, medical director, chief tuberculosis control division, U.S. Public Health Service, The National Aspects of B C G Immunizations.

Dr. Ernest E. Irons, Observations of the Chicago Committee on the Effectiveness of B C G Vaccine Among Nurses and Interns.

Dr. Sol Roy Rosenthal, Technique of B C G Vaccination.

The discussion was carried on by Drs. Frederick

Tice, D. J. Davis, A. A. Day, Walter H. Theobald and Arthur Newitt.

Scholarship Named for Physician.—Scholarships have been established at the University of Illinois College of Medicine by the Berkelhamer family, 3945 West Jackson Boulevard, Chicago, in honor of the late Dr. Ralph C. Berkelhamer who was taken prisoner by the Japanese at Bataan and who perished when his prison ship bound for Japan was sunk by submarine action in the South China Sea in October 1944. Leslie T. McClinton, Chicago, and Robert H. Kass, Berwyn, have been awarded the first scholarships representing gifts of $100 each. McClinton serves as president of the junior class in medicine. Kass, also a junior medical student, completed thirty-four bombing missions during the war as a B-17 pilot for the 8th Air Force. Students who have completed at least one year in the college of medicine are eligible for the scholarship. The Berkelhamer family has stipulated that the scholarship may be awarded "to any needy and deserving student, with no prejudice as to race or religion."

Special Lectures.—The twelfth Christian Fenger Lecture of the Institute of Medicine and the Chicago Pathological Society was delivered at the Palmer House on Monday evening, January 12, at 8:00 o'clock by Dr. E. V. Cowdry, The Barnard Free Skin and Cancer Hospital, St. Louis, on "Expectations in Cancer Research." The first Edward Lorenzo Holmes Memorial Lecture of the Rudolph Wiesser Holmes and Maria Baxter Holmes Fund in memorial to Dr. Edward Lorenzo Holmes will be delivered at a joint meeting with the Society of Medical History of Chicago at the Palmer House on Friday evening, January 30, at 8:00 o'clock by Dr. Edward Vail Lapham Brown, Rush Clinical Professor Emeritus of Ophthalmology, University of Illinois College of Medicine.

Department of Clinical Science Established.—A department of clinical science has been established at the Chicago Professional Colleges of the University of Illinois for the purpose of emphasizing the interdependence of the basic sciences and the practice and progress of clinical medicine.

The department, unique among medical colleges in the United States, will be headed by Dr. A. C. Ivy, vice president of the University.

Problems of research which will be conducted in the department cover the entire science of medicine. Research will include:

1. Normal and pathological gastro-intestinal physiology (the hormones of the digestive system), involving studies of enterogastrone in the treatment of peptic ulcer, cholecystokinin in the diagnosis of gall bladder disease, and the chemical structure of secretion, the hormone for the pancreas.

2. The biology of cancer, including studies of diagnostic tests for cancer, and growth promoting and growth inhibiting substances.

3. The vital function of the kidneys, involving studies of prolongation of life after bilateral removal of the kidneys.

4. The mechanisms and most effective means of producing analgesia, involving a search for analgesic drugs and a study of where analgesic drugs act.

Four faculty members with the rank of assistant professor, Drs. Morton I. Grossman, William H. Backrach, Louis R. Krasno, and L. L. Gershbein, have been assigned to the department. Five research fellows and 30 graduate students also are conducting research in the department.

The department is offering three courses on "Advanced Physiology of the Digestive System," "Seminar in Clinical Science," and "Research in Clinical Science" for graduate students during the current semester. A fourth course, "Physiology of Symptoms," is offered to undergraduate medical students.

Dr. Carlisle Honored.—Dr. W. T. Carlisle was recently made an honorary member of the Texas Obstetrical and Gynecological Society. As a guest speaker at the society's meeting, November 21-23 Dr. Carlisle addressed the group on "Choice of Surgical Procedure in Vaginal Repair Operations" and "Management of Ovarian Tumors."

Internal Medicine Meeting.—The twenty-first regular meeting of the Chicago Society of Internal Medicine was held, November 24, in Chicago. Speakers before the group included Dr. C. Wesley Eisele and Dr. Norman B. McCullough on "An Evaluation of Diagnostic Methods of Use in Brucellosis"; Dr. Michael H. Streicher, Dr. Morton I. Grossman, and Dr. Andrew C. Ivy on "Clinical Evaluation of Dibuteline in Diseases of the Gastrointestinal Tract"; and Dr. Louis N. Katz, Dr. L. Horlick, and Dr. J. G. Schlichter on "Experimental Atherosclerosis."

Chicago Association of Commerce Sponsors Medical Meeting.—"Chicago Medicine Looks Ahead" was the theme of a program, November 19, at the Hotel Sherman, under the auspices of the Chicago Association of Commerce and Industry. The speakers were Dr. Donald C. Balfour, director, Mayo Foundation for Medical Education and Research; Dr. Andrew C. Ivy, vice president, University of Illinois College of Medicine; Dr. James J. Smith, dean, Loyola University School of Medicine; Dr. Lowell T. Coggeshall, dean, division of biological sciences, University of Chicago School of Medicine; and Dr. J. Roscoe Miller, dean, Northwestern University Medical School.

New Appointments at Illinois.—Dr. Jules H. Last, recently released from active duty by the U. S. Army with the rank of captain, has been appointed an assistant professor in the department of pharmacology and toxicology at the University of Illinois.

Dr. Last conducted nutritional studies in service, and was a member of "Task Force Frigid." He received his doctor of philosophy degree at the

University of Chicago in 1941, and his doctor of medicine degree at the University of Illinois in 1944. He resides at 1050 Oak street, Highland Park.

Dr. C. C. Pfeiffer, head of the department of pharmacology and toxicology, also has announced the appointment of two research associates. They are Dr. James A. Bain of Langdon, N.D., and Dr. Virgil A. Gant, 20 S. Dearborn street, Chicago.

Dr. Bain, a graduate of the University of Wisconsin, is studying the biochemistry of epilepsy. Dr. Gant, who received his doctor's degree in pharmacology at the University of Illinois in 1938, will serve as a research associate in toxicology on a half-time basis.

The Annual Pusey Dinner.—The second annual William Allen Pusey Dinner was held at the University Club of Chicago, October 15, for members of the Chicago Dermatological Society. The speakers were Drs. Otto H. Foerster and Leonard F. Weber. Dr. Pusey was a charter member of the society and established the fund for the annual dinner.

Expand Services in the Field of Speech and Hearing.—The School of Speech and the Medical School of Northwestern University will expand their educational and clinical services in the fields of speech and hearing by establishing a new graduate course in ear, nose and throat. Dr. Howard C. Ballenger, associate professor of otolaryngology, will supervise the new program, with Dr. Elmer W. Hagens, assistant professor of otolaryngology, conducting a basic course in ear, nose and throat. Dr. George E. Shambaugh Jr., assistant professor of otolaryngology, will teach a course on the fenestration operation. Guidance in the selection of hearing aids will be a part of the new program, and Raymond Carhart, Ph.D., professor of audiology and director of the School of Speech's hearing laboratory on the Evanston campus, will supervise testing, oral rehabilitation, lip reading, auditory training and speech control before and after operations, thus coordinating medical and surgical work with the department of audiology. The addition of a laboratory in the medical school will enlarge the activities of the School of Speech Hearing Laboratory and permit a greater number of patients to be accommodated. About 600 children and adults with hearing deficiencies have been assisted in the Evanston laboratory during the last year.

University Lecture.—Dr. M. M. Suzman, Johannesburg, South Africa, delivered an illustrated lecture on the "Clinical Aspects of Nutritional Deficiency Diseases as Seen in South Africa", November 26, at the University College of Medicine. Dr. Suzman serves as senior physician to the Johannesburg General Hospital, and is a member of the department of medicine at Witwatersrand University.

Postgraduate Course on X-Ray.—The American College of Radiology, in cooperation with the Chicago Roentgen Ray Society, will sponsor a regional course, March 8-12. First preference for the courses will be given to applicants who are fellows and members of the college who are veterans of World War II and who have not taken previous courses. Second preference will be given to nonveteran members and fellows of the college who have not taken previous courses. A maximum of one hundred registrants will be admitted to the course. The tuition will be fifty dollars. Dr. Theodore J. Wachowski is in charge of arrangements for the Chicago course.

New Site for Loyola University.—Loyola University has negotiated for a new $12,000,000 site on which to build a new medical and dental school, newspapers reported October 22. The university plans to erect a $3,000,000 building and set aside $9,000,000 for maintenance and medical research.

Branch Meeting.—The North Shore Branch, Chicago Medical Society, held a scientific meeting, November 4, at the Edgewater Beach Hotel, Chicago. Speakers on the program were Dr. Leon Jacobson, assistant professor of medicine and associate dean, University of Chicago School of Medicine and Dr. T. J. Wachowski, associate professor of radiology and chief of x-ray therapy, University of Illinois College of Medicine on "The Use of Nitrogen Mustard in the Treatment of Neoplastic Diseases"; and Dr. George B. LeRoy, associate professor of medicine, Northwestern University School of Medicine, on "Medical Problems of Atomic Warfare."

Dr. Gardner Promoted.—Dr. George H. Gardner, a member of the faculty at Northwestern University Medical School since 1927, has been appointed chairman of the department of obstetrics and gynecology in the medical school, it was recently announced. Dr. Gardner is assistant dean and has been professor of gynecology since 1946.

GREENE COUNTY

Annual Election of Officers.—Dr. F. Earl Walker, Roodhouse, was elected president of the Greene County Medical Society at its annual meeting in the American Legion Hall, Roodhouse, December 12. Other officers are Drs. Paul A. Daley, Carrollton, vice president; W. H. Garrison, White Hall, secretary-treasurer, and N. J. Bucklin, censor. Drs. Paul Garrison, Winchester, and W. H. Newcomb, Jacksonville, were visitors at the session which was addressed by Dr. Ellsworth Black, Jacksonville, on "Peptic Ulcer." Following a turkey dinner, the business meeting was called to order by Dr. R. W. Piper, outgoing president of the society. Communications were discussed from the Public Aid Commission calling attention to various proposed changes relative to the handling of medical care of public aid recipients and the Illinois State Nurses Association. Further business included the acceptance into membership of the society of Dr. E. G. de Quevedo.

LAKE COUNTY

Personal.—Dr. Walter W. Dalitsch, Lake Bluff, reserve liaison officer at the Ninth Naval District Headquarters, addressed a joint meeting of the Lancaster County Medical Society and the Lincoln District Dental Society, November 3, in Lincoln, Nebr., on "Medical Problems in Dentistry." A similar program was given at Omaha, November 4.

LA SALLE COUNTY

Society News.—Dr. Chauncey C. Maher, Chicago, discussed "Auricular Fibrillation" before the La Salle County Medical Society in La Salle, December 11.

MACON COUNTY

Society News.—Dr. Carl Harford, chief of the division of infectious diseases, Barnes Hospital, a member of the staff of Washington University School of Medicine, St. Louis, addressed the Macon County Medical Society, November 20, in Decatur. His subject was "Drug Fastness in Chemotherapy."

Smith Memorial Planned.—The obstetrical department in Decatur and Macon County Hospital will be remodeled and named for Dr. D. D. Smith who for many years was chief of the department. The Macon County Medical Society Bulletin reports that $15,000 of the $35,000 goal has already been reached.

MADISON COUNTY

Society News.—"Allergy" was the topic discussed by Dr. H. E. Hampton, St. Louis, before the Madison County Medical Society at its meeting at St. Elizabeth's Hospital, Granite City, December 5.

Society News.—The annual dinner and Christmas party of the Madison County Medical Society was held in Highland, Illinois, Thursday evening, November 13. Dr. Groves B. Smith was master of ceremonies at the affair. A wrapped gift of $1.00 value was given to each person present. — Dr. Eugene M. Bricker, assistant professor of clinical surgery at Washington University School of Medicine, St. Louis, discussed "Carcinoma of the Colon and Rectum" before the society in October.

McLEAN COUNTY

Society News.—Dr. John H. Olwin of Presbyterian Hospital, Chicago, discussed "Anticoagulant Therapy" before the McLean County Medical Society at its dinner meeting in Bloomington, December 9.

PEORIA COUNTY

Society News.—Dr. Walter C. Alvarez, Rochester, Minn., addressed the North Central Medical Association and the Peoria Medical Society in Peoria, November 6. — Dr. J. Peerman Nesselrod and Dr. Jay Garner, Northwestern University Medical School, addressed the Peoria Medical Society, November 18, on "Role of Infection in Ano-Rectal Disease."

ROCK ISLAND COUNTY

Society News.—Dr. Danely P. Slaughter, associate professor of surgery, University of Illinois College of Medicine, addressed the Rock Island County Medical Society, November 11, on "The Diagnosis of Accessible Cancer" at the Rock Island County Tuberculosis Sanatorium, Rock Island.

WHITESIDE COUNTY

Society News.—Dr. Raphael Isaacs, Chicago, attending physician in hematology, Michael Reese Hospital, addressed the Whiteside County Medical Society at their annual meeting, December 8, in Sterling, on "The Rh Factor and Its Significance in General Practice."

WILLIAMSON COUNTY

Society News.—A Six County Medical Society meeting arranged by Dr. Martin M. May, secretary of the Williamson County Medical Society, November 20, was addressed by Drs. Robert J. Crossen and J. C. Jaudon, both of St. Louis, on "Carcinoma of Uterus" and "Feeding and Care of the Infant During the First Year of Life," respectively. The meeting was held at the Lymar Hotel, Herrin, and included the counties of Franklin, Jackson, Perry, Randolph, Union and Williamson.

WINNEBAGO COUNTY

New Society Members.—The following doctors have been elected to membership in the Winnebago County Medical Society since September:

Doctor LeBaron Paul Johnson, who resides at 2802 Cumberland St., who is associated with Doctor Joseph Lundholm.

Doctor Garland O. Wellman, who resides at 1921 East Gate Parkway, who is associated with Doctor T. A. Johnson.

Doctor Robert E. Heerens, who resides at 307 Cole Avenue, and whose offices are in the City National Bank Building.

Doctor Edward V. Platt, who resides at 2311 Oxford Street, and who heads the Department of Anaesthesiology at St. Anthony Hospital.

Doctor M. O. Alexander, who resides at Winnebago, Illinois, and who heads the Department of Pathology and Bacteriology at Rockford Memorial Hospital.

WOODFORD COUNTY

Personal.—Dr. Loren Boon recently opened an office in Danvers. Dr. Boon served in the army of the United States during World War II.

GENERAL

Joint Meeting on Tuberculosis.—Dr. J. Arthur Myers, former president of the National Tuberculosis association and president of the Mississippi Valley Conference on Tuberculosis, was the principal speaker at a joint meeting of the Illinois Trudeau society, the Illinois Chapter of the American College of Chest Physicians and the Sangamon County Medical society in Springfield, October 2.

Speaking on "Tuberculosis in General Practice and the Specialties," Dr. Myers addressed the evening

session of the meeting. In the afternoon the doctors heard Dr. Charles K. Petter, medical director and superintendent of the Lake County Tuberculosis sanatorium speak on "The Need for Periodic X-ray Examination of Adult Chests;" Dr. D. H. Trumpe, assistant medical director, St. John's Tuberculosis Sanatorium, Springfield, discuss "The Role of Bronchoscopy in Diseases of the Chest;" Dr. George H. Vernon, medical director, Palmer's Tuberculosis sanatorium, Springfield, speak on "Our Experience with Streptomycin;" and Dr. J. A. Stocker, assistant medical director, St. John's Tuberculosis sanatorium, Springfield, discuss "Limitations of Collapse Procedures."

Presiding officer at the afternoon meeting was Dr. Arthur S. Webb, president of the Illinois Tuberculosis Association and tuberculosis controller, Du Page County Sanatorium board. Leaders of discussion at that meeting were Dr. Clifton Hall, chief, Illinois Tuberculosis Control division: Dr. Stuart Broadwell; Dr. A. E. Steer, medical director, Sangamon County Tuberculosis board, and Dr. L. L. Collins, medical director and superintendent, Madison County Tuberculosis sanatorium.

Former Illinois Physician Honored.—Dr. Andrew Harvey, assistant health officer, Long Beach, California, and formerly a resident of Illinois was recently presented with a fifty year pin in a ceremony at the Pleiades Lodge.

New Officers of Mississippi Valley Society.—The 13th Annual Meeting of the Mississippi Valley Medical Society will be held at Springfield, Illinois, September 29, 30, October 1, 1948, under the presidency of W. O. Thompson, M.D., of Chicago, Professor of Medicine, University of Illinois.

At the November meeting of the Board of Directors the following officers were elected.

President-Elect: Alphonse McMahon, M.D., St. Louis, Mo.

1st Vice Pres.: Elliott F. Parker, M.D., Moline, Ill.

2nd Vice Pres.: Clinton W. Lane, M.D., St. Louis, Mo.

3rd Vice Pres.: John C. McKittrick, M.D., Burlington, Iowa.

Sec.-Treas.: Harold Swanberg, M.D., Quincy, Ill. (Re-elected).

Acc't. Officer: Ralph McReynolds, M.D., Quincy, Ill. (Re-elected).

The recently elected Directors of the Society from Illinois are Drs. J. E. Bellas, Peoria; M. E. Bitter, Quincy; Warren Furey, Chicago; James Graham, Springfield; James Hermetet, Macomb; Fred Mueller, Chicago; W. C. Scrivner, East St. Louis.

Dr. Bauer Given Prentiss National Award in Health Education.—W. W. Bauer, M.D., director of the Bureau of Health Education of the American Medical Association since 1932, today was awarded the Elisabeth Severance Prentiss National Award in Health Education, given each year by the Cleveland Health Museum to the person who has made the most outstanding contribution to health education.

The presentation was made November 17, 1947, at the annual civic luncheon in Cleveland of the Cleveland Health Museum. The ceremony was broadcast over the Mutual network. In addition to the acceptance speech by Dr. Bauer, Dr. Robert Stecher of Cleveland gave a report on medical conditions in the European countries from which he has just returned.

The Prentiss Award was established in 1943 in memory of the Museum's first foundation benefactor to stimulate health education, and recipients are selected by a national committee. Names of the annual winners are inscribed on a bronze plaque at the Museum, and the winners themselves receive a replica of the plaque and an embossed certificate. Mrs. Prentiss, in whose name the awards are given, left her mansion to house the first health museum in America.

Dr. Bauer, the winner of this year's award, is associate editor of *Hygiea,* the health magazine of the American Medical Association. He is in charge of the A. M. A. radio programs, broadcast over the NBC-MBS network and other stations, and is the author or co-author of nine books and of numerous magazine articles pertaining to health.

Aesculapian Society Elects Officers.—Dr. C. D. Swickard, Charleston, was elected president of the Aesculapian Society of the Wabash Valley at its fall meeting, October 30, in Danville, succeeding Dr. C. L. Kerrick, Chrisman. Other officers chosen included Drs. Harlan English, Danville, secretary-treasurer, and W. C. Meyers, Vincennes, vice president. The spring meeting will be in Vincennes.

HEALTH DEPARTMENT ACTIVITIES

Health Officers Named.—Effective September 1 Dr. Charles R. Kincaid was appointed Health Officer for the Will County Health Department, with offices in Joliet. Dr. Kincaid took his medical degree at Ohio State University and his master's degree in public health from the University of Michigan. He was employed for three years with the Indiana State Board of Health and served for three years as Director of the City-County Health Department at Eau Claire, Wisconsin. He also served with the United States Army from January 1943 to February 1946.

Dr. Ernest J. Beckner of the State of Kansas was appointed Health Officer for the Montgomery County Health Department effective October 1. After receiving his medical training at the University of Nashville in Nashville, Tennessee, Dr. Beckner engaged in private practice for twenty years. Since 1941 he has served as Health Officer in Kansas, first with the Health Department in Pratt County and later with the Butler County Health Department.

New Bulletin.—In October, the first issue of "Blithe" made its appearance under the auspices of the Division of Public Health Education of the

Illinois State Department of Public Health. "Blithe" or Better Living in Illinois Through Health Education, is a news bulletin of health activities throughout the state and will appear monthly in mimeographed form. Its first issue announced that twenty-seven Quincy and Adams County organizations met October 7 to plan for the organization of a local health council which will become a division of the Adams County Community Chest and Welfare Council. The council was proposed by the Adams County Medical Society at a joint meeting of the executive committees of the Welfare Council and medical society early this year. The first issue also discussed new books on health education, announcements of meetings, and new films that are available.

The second issue of "Blithe" discussed the seventeen health circulars that are on the press on a wide range of health topics. In addition, there are nine manuscripts being worked on for publication covering the common cold, diseases transmitted from animals to man, diseases transmitted from water to man, the endocrine glands, rheumatic fever, Rock Mountain spotted fever, scarlet fever, dysentery and tuberculosis. It is hoped that these manuscripts will be available in booklet form by September of 1948.

"For The Common Good"

Dr. Harry M. Hedge Uses Words "Doctor of Medicine" on his stationery. This is interesting and shows a real appreciation of the degree signifying his professional status.

"Do Good, Be Good and Then Publicize It" is the crux of good public relations, according to Dr. Harold M. Camp, Secretary of the Illinois State Medical Society. The success of this concept was exemplified during the National Farm Show at the Coliseum, Chicago, November 29-December 7, when "The Doctor and His Medical Society," the exhibit, reflecting the formal organization structure and activities of the Illinois State Medical Society, was a feature of the Educational Exhibits.

An attendant was in the booth of the society from 9 a.m. until 11 p.m. to answer questions and point out the similar basic structure in each county and state medical society, emphasizing the representation of each state society in the House of Delegates of the American Medical Association. The county, state and national level in the complete medical picture was explained, with emphasis on the physicians as the fundamental unit in the entire program.

Because of the wide range of persons reached, this brief indoctrination should have a broad educational influence. While conversations were held with visitors from many states, persons who signed the register requesting specific information from the Illinois State Medical Society were from twenty-six states: Alabama, Arizona, Arkansas, California, Colorado, Georgia, Indiana, Iowa, Kansas, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, New Jersey, New Mexico, New York, North Dakota, Ohio, Oklahoma, South Dakota, Texas, Virginia and Wisconsin. One person was from Bahia, Brazil, one from the Philippines, and Saskatchewan, Edmonton and Manitoba were represented from Canada. One person was from the State Clerk's Office in Missouri; one was a radio station manager in Minnesota; one represented the Minnesota Agricultural Association, and was an editor of a weekly newspaper. There were rural school teachers, 4-H Club leaders, home bureau advisers, one professor from Texas Technological College, one priest on the staff of a Chicago college, and one teacher from a Chicago high school brought in a group of sixteen students. There were physicians, nurses, veterinarians, farm and rural residents. Eighty-five cities throughout the state of Illinois were represented.

This information is cited to show the wide cross-section reached by the Illinois State Medical Society in explaining its own educational services. The reactions indicated that many persons from other states were not familiar with their state society and, as a measure of public relations in Illinois, it is hoped to write persons from these states, who asked for specific information, informing them of the headquarters of the respective state medical societies.

There were requests for HEALTH TALK, the health column of the Educational Committee, the Prepayment Medical and Surgical Plan of the state society, legislative material dealing with the public health and package libraries on a wide range of subjects. One of the popular questions was "How to Obtain a Doctor."

"Doctors and Horses", a new brochure designed to show that an effective health program must be initiated and carried on at a community level, made its appearance at the Farm Show. Approximately 4,000 copies were distributed. The booklet is the work of the Committee on Rural Medical Service and the Committee on Medical Service and Public Relations, whose respective chairmen are Dr. Harlan English, Danville, and Dr. James H. Hutton, Chicago.

Another booklet, "The Doctor and His Medical Society," describing the formal setup of medical organization and committee activities, also made its appearance at the Farm Show. This was an activity of the Educational Committee whose chairman is Dr. Charles P. Blair, Monmouth.

Realizing the value of having an attendant in the



President Irving H. Neece (center) visits the Society's educational exhibit at the National Farm Show and explains details to two visitors.

booth at all times, the Chairman of the Advisory Committee to the Woman's Auxiliary, Illinois State Medical Society, Dr. Darwin B. Pond, Chicago, offered the project to the members of the auxiliary. The State Auxiliary, whose president is Mrs. John Soukup, Chicago, welcomed the opportunity, but the Chicago group, recognizing the travel distance involved for downstate members, assumed complete responsibility for five week days. The women attended the exhibit on four hour shifts. Of the many volunteers that submitted their names, the following were chosen in order of their receipt: Mrs. Ralph A. Davis, Mrs. Walter W. Armstrong, Mrs. Harold W. Miller, Mrs. Karl L. Vehe, Mrs. John Mart, Mrs. J. P. Schriver, Mrs. Virgil Vanstane, Mrs. H. Kenneth Scatliff, Mrs. A. Weigen, Mrs. G. F. Hibbert, Mrs. G. W. Lawson, Mrs. E. W. Gardner, Mrs. Joseph Shanks, Mrs. James McDonnough, Mrs. B. K. Lazarski, Mrs. Samuel G. Plice, Mrs. J. W. Fischer, Mrs. Albert T. Lundgren, Mrs. Nicholas Dykstra, Mrs. Adolph J. Jarosz, and Mrs. August Wendel. During the weekends and evenings, the staff of the Illinois State Medical Society attended the booth.

Of the fourteen educational films that were run continuously each day, two appeared under the auspices of the Illinois State Medical Society: "A Stitch in Time," endorsed by the National Safety Council, and "Water, Friend or Enemy," developed by the Office of Inter-American Affairs and released through Association Films.

The expansion of medical care to farm families is one of the biggest problems yet to be solved. That medical organization recognizes this need was evidenced in this program of the Illinois State Medical Society at the National Farm Show and indicates that the doctor of medicine, individually, through his society, is actively interested in obtaining good medical care for all rural residents.

The cooperation of all persons identified with this educational project of the Illinois State Medical Society, particularly the Committees concerned with working for and with the public, and the splendid assistance of the Woman's Auxiliary of the state medical society are an excellent example of good public relations within the organization itself. This factor alone will assure good service to the public at large.

Lectures Arranged Through the Scientific Service Committee of the Illinois State Medical Society:

Dr. Otto St. Clair Krebs, St. Louis, Macoupin County Medical Society in Carlinville, November 25, Sterility.

Dr. Samuel M. Feinberg, Chicago, Vermilion County Medical Society in Danville, December 2, Diagnosis in Allergy: Its Interpretation.

Dr. Raphael Isaacs, Chicago, Whiteside County Medical Society in Sterling, December 8, The Rh Factor and Its Significance in General Practice.

Dr. Ralph H. Kunstadter, Chicago, Will-Grundy County Medical Society in Joliet, December 11, Diarrhea Problems Among the Newborn: Treatment.

Dr. Manuel Spiegel, Chicago, joint meeting of Lawrence, Jasper, Richland, Clark and Crawford County Medical Societies, in Danville, December 11, Conduct of Breech Delivery. Dr. Spiegel also conducted a clinic.

Dr. Nathan S. Davis, Chicago, Du Page County Medical Society in Elmhurst, December 17, Geriatrics.

Dr. Israel Davidsohn, Chicago, Will-Grundy County Medical Society in Joliet, January 22, The Rh Factor.

Dr. Maurice Wald, Winnetka, Vermilion County Medical Society, Danville, February 3, Hypertension.

Dr. Chester Coggeshall, Chicago, Will-Grundy County Medical Society in Joliet, February 12. Recent Advances in Diabetes.

Dr. W. H. Tucker, Evanston, Logan County Medical Society in Lincoln, February 19, Flourine and Dental Caries.

Dr. Emmet B. Bay, Chicago, Will-Grundy County Medical Society in Joliet, February 26, Drug Administration in Heart Disease.

Lectures Arranged Through the Educational Committee of the Illinois State Medical Society:

Dr. Louise E. Tavs, Chicago, Woman's Auxiliary, Englewood Branch, Chicago Medical Society, November 14, Care of the Skin.

Dr. Charles K. Kincaid, Joliet, Junior Women's Club, Peotone, November 25, Public Health.

Dr. Franklin Fitch, Chicago, Fra Del Rhoo, a club group, December 16, Sex Hygiene.

Dr. Raymond E. Davies, Spring Valley, Monmouth Women's Club, January 9, What We Can Do About Cancer.

Dr. Leon M. Hart, Chicago, Young Married

Couples Evening Club, Chicago, January 11, Medicine in World War II.

Dr. Harlan English, Danville, Women's Club of Springfield, January 17, Compulsory Health Insurance.

Dr. Ernest Schmidhofer, Chicago, Calumet High School PTA, Chicago, January 20, Physical, Mental and Emotional Needs of Children.

Dr. John T. Reynolds, Chicago, Chicago Woman's Aid Club, January 23, Advances in Cancer:

Dr. Harold W. Miller, Chicago, Woman's Auxiliary, Aux Plaines Branch, Chicago Medical Society in Oak Park, January 23, Prepayment Medical Care Plan.

Dr. Hugo Rony, Chicago, Woman's Auxiliary, South Chicago Branch, Chicago Medical Society, February 2, Growing Old Gracefully.

Dr. George E. Wakerlin, Chicago, Woman's Auxiliary, Vermilion County Medical Society in Danville, February 3, Antivisection.

Dr. Pliny R. Blodgett, Chicago Heights, Forest Ridge Woman's Club, February 18, Blood Pressure.

Dr. George H. Rezek, Chicago, Belmont Women's Club, Chicago, February 18, Facing the Forties.

DEATHS

Joseph Elwell Asay, Rock Island, who graduated at Cincinnati College of Medicine and Surgery in 1892, died August 6, aged 80.

Walter Caron, Oak Park, who graduated at the College of Physicians and Surgeons of Chicago, School of Medicine of the University of Illinois in 1905, died September 17, aged 70, of arteriosclerotic heart disease.

John Robert Cochran, Jr., Evanston, who graduated at Harvard Medical School, Boston, in 1937, died September 27, aged 37, of hypertension. He was instructor of surgery at Northwestern University Medical School.

Earl Cooper, Augusta, who graduated at Keokuk Medical College, College of Physicians and Suregons, Keokuk, in 1905, died November 5, aged 68.

Solomon Greenspahn, Chicago, who graduated at Rush Medical College in 1889, died November 17, aged 81. He had practiced medicine in Chicago for 56 years and was medical director of the American Hospital.

Charles H. McKenna, Chicago, who graduated at Northwestern University Medical School in 1913, died November 13 in his home, aged 62. He was on the staff of Mercy Hospital for 15 years and was former chairman of medicine at Holy Cross Hospital.

George W. Michell, Peoria, who graduated at Rush Medical College in 1902, died November 17, aged 71. He operated two sanitariums for the treatment of mental and nervous disorders.

Clara M. Ochs, Oak Park, who graduated from University of Illinois College of Medicine in 1918, died November 19, aged 71. She had been on the staff of the Women and Childrens Hospital.

Hugh M. Orr, LaSalle, who graduated at College of Physicians and Surgeons at Baltimore in 1895, died November 17, aged 80, of heart disease. He helped found St. Mary's Hospital and was mayor of LaSalle for 19 years.

Henry Reis, Belleville, who graduated at Columbian University Medical Department, Washington, D. C., died August 4, aged 75, of cerebral hemorrhage. Formerly was a member of the State Board of Health and was on the staff of St. Elizabeth's Hospital.

Reinhard Rembe, Chicago, who graduated at University of Berlin in 1895, died November 11, aged 84. He was chief of staff of the Philippine General Hospital in the Philippine Islands from 1909 to 1916.

David Cook Richardson, Olmstead, who graduated at Chicago Medical School in 1932, was found dead in a St. Louis hotel August 19, aged 44, of heat stroke.

Thomas H. Sandy, Oak Park, who graduated at Harvey Medical College in 1901, died November 24, aged 72. For 35 years he was medical director of the Continental Illinois National Bank and Trust Company.

George E. Shambaugh, retired, Chicago, who graduated from the University of Pennsylvania School of Medicine in 1895, died November 30, aged 78. He was professor emeritus of otolaryngology, (Rush) University of Illinois College of Medicine, and otologist and laryngologist (emeritus), Presbyterian Hospital.

George Curtis Shockey, Franklin Park, who graduated at the University of Nebraska College of Medicine, Omaha, in 1902, died August 7, aged 74. Served during World War I. He was affiliated with West Suburban Hospital in Oak Park and Westlake Hospital in Melrose Park.

John Wesley Tilden, Jr., Chicago, who graduated at Meharry Medical College, Nashville, Tennessee, in 1918, died August 1, aged 55, of organic heart disease.

Louis H. Wiman, Princeton, who graduated at the Medical College of Indiana, Indianapolis, in 1904, died August 24, aged 70, of heart disease. He was a past president of the Bureau County Medical Society.

Albert Zrunek, Chicago, who graduated from Univerzita Komenského Fakulta Lékárska, Bratislava in 1922, died recently, aged 54. He was on the staff of the Chicago Memorial Hospital and had practiced medicine in Chicago for 22 years.



THE THERAPEUTIC ROLE OF VITAMINS . . .

. . . is more fundamental than merely to prevent or cure the well-known syndromes of specific deficiency diseases. Restoring carbohydrate and amino acid metabolism to normal is also attributable to the role of vitamins.

Recovery from shock, acute infections, and surgery is accelerated by the administration of two Gelseals 'Theracebrin' (Pan-Vitamins, Therapeutic, Lilly) per day for a week or ten days. Thereafter, one Gelseal 'Theracebrin' daily is sufficient to maintain tissue levels of the essential vitamins.

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℞

Syrup Sedulon Roche.....℥ iv
Sig. One teaspoonful every 2 hours; one tablespoonful at bedtime
(For night cough in adults)



Speed Recovery in

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PENICILLIN VAGINAL SUPPOSITORIES

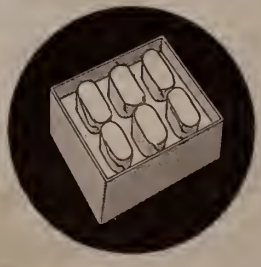
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Particularly useful in the medical and surgical management of cervicitis due to (or complicated by) penicillin-sensitive organisms.

ADVANTAGES ● Potent dosage at site of infection—each suppository provides 100,000 units of penicillin ● Painless administration ● Simplicity and convenience.

Early favorable response establishes the effectiveness of Penicillin Vaginal Suppositories Schenley.

Suggested Dosage: One suppository on retiring or as required.



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DOHO in realizing the need for a potent, topical, well tolerated ear medication, yet mindful that no one formula could be suitable for all conditions . . . devoted every facility and scientific resource to the development and perfection of AURALGAN and OTOSMO-SAN. Each has its sphere of usefulness . . . each has been tested and clinically proven in many thousands of cases. *Reprints and substantiating data sent on request.*

EACH A SPECIFIC . . . both effective!

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IN ACUTE OTITIS MEDIA

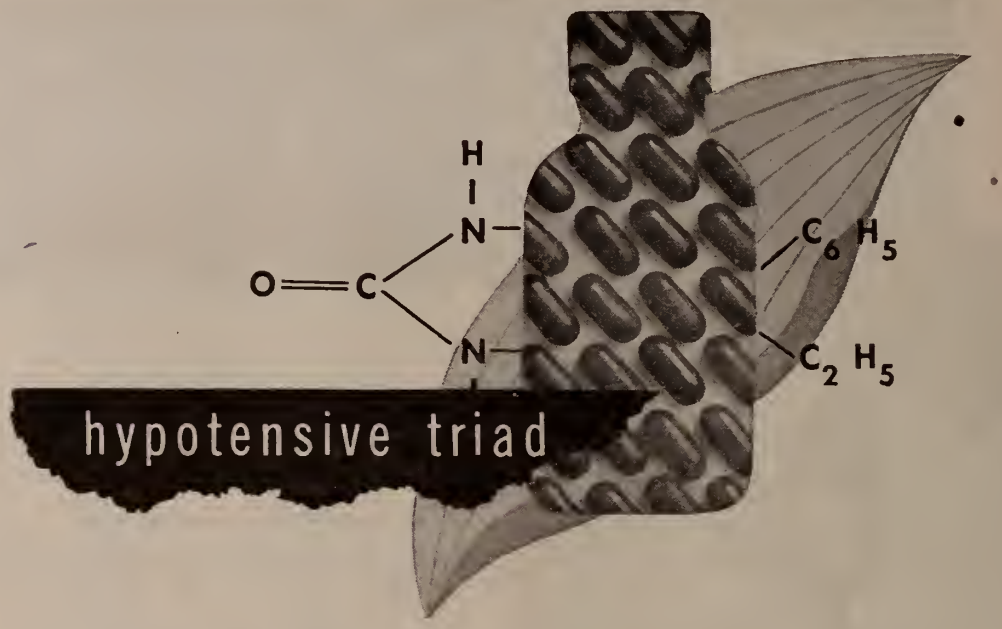
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is not just a mere mixture, but a scientifically potent chemical combination of Sulfathiazole and Urea in AURALGAN Glycerol (DOHO) base . . . which exerts a powerful solvent action on protein matter, liquefies and dissolves exuberant granulation tissue, cleanses and deodorizes, and tends to exhilarate normal tissue healing in the effective control of chronic suppurative otitis media.

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For the hypertensive patient, whose elevations in blood pressure are less than a critical degree, VERATRITE provides a calm, gradual fall in blood pressure and a practical approach to symptomatic relief.

Each tabule contains:

Veratrum Viride..... 3 CRAW UNITS*
Sodium Nitrite..... 1 grain
Phenobarbital.....¼ grain

Bio-Assayed Veratrum Viride (Irwin-Neisler) augments the common effects of sodium nitrite and phenobarbital; vasodilatation of a prolonged degree is accomplished with improvement in general circulation.
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of steroid sex hormones

Patients not requiring close supervision—and those for whom treatment by injection is not practical— can be most economically treated with Metandren and Lutocylol Linguets*, and tablets of Ethinyl Estradiol-Ciba. These are the most potent substances of their kind available, effective in initial as well as maintenance therapy.

*LINGUETS, designed for direct absorption by the oral mucosa, are exclusive with Ciba. They are nearly twice as effective, milligram for milligram, as tablets which are ingested.

METANDREN---------- (*methyltestosterone—most potent oral androgen*). *LINGUETS 5 and 10 mg. Tablets 10 and 25 mg.*

ETHINYL ESTRADIOL-CIBA---------- *Most potent oral estrogen. Tablets 0.02 and 0.05 mg.*

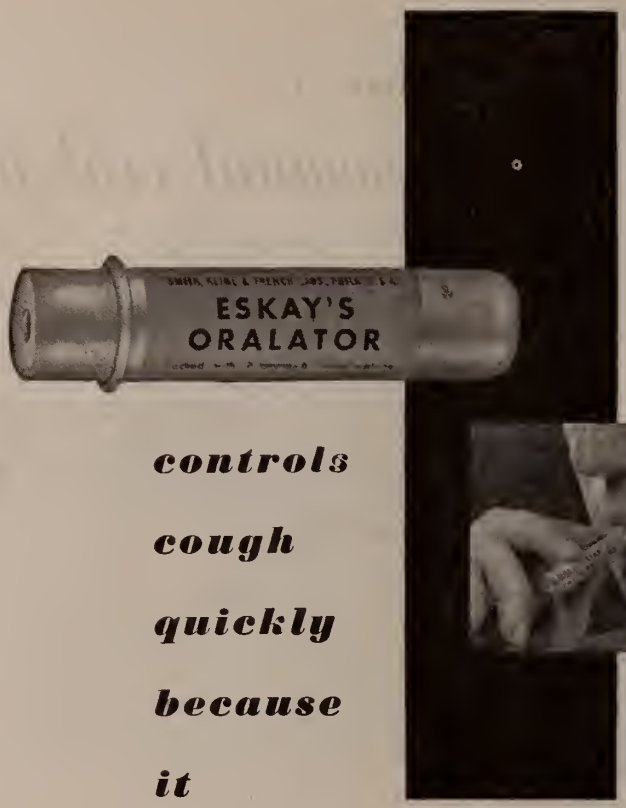
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METANDREN, LUTOCYLOL, LINGUETS • T. M. Reg. U. S. Pat. Off.



controls cough quickly because it acts directly

a few inhalations **by mouth** *control cough quickly*

The anesthetic-analgesic vapor* from Eskay's Oralator is delivered by inhalation through the MOUTH directly to the lining of the trachea and larynx—where it acts almost instantaneously to control cough. The patient gets relief in a matter of seconds.

This local therapy produces no appreciable systemic effects, and thus avoids the depressant action of sedatives and narcotics.

Eskay's Oralator is outstandingly convenient—easy to use anywhere at any time. Your patients will appreciate your prescribing this quick-acting oral inhaler. *Smith, Kline & French Laboratories, Philadelphia.*

***Eskay's* Oralator**

A revolutionary advance in the treatment of cough

**(The active ingredient is 2-amino-6-methylheptane, S.K.F.)*

Eliminate infection in

WOUNDS **ULCERS**
LESIONS **FISSURES**
ABSCESSES **CYSTS**

by simple topical application



Glycerite of Hydrogen Peroxide ipc
stable, long-acting, non-selective, bactericidal solution . . .

. . . Possesses the mechanical advantages of liquid and ointment types of medication . . .

. . . Hygroscopic, penetrates into and draws plasma from deeper parts of wounds, washing particulate matter to the surface . . .

. . . Aids granulation of healthy tissue and speeds healing processes . . .

. . . Non-toxic, non-irritating, non-sensitizing . . . Apply full strength as frequently as desired.

GLYCERITE OF HYDROGEN PEROXIDE *ipc*

Bibliography:

New Eng. J. Med. 234:468, 1946.
J. Invest. Derm. 8:11, 1947.
Annals of Allergy 4:33, 1946.
Science 105:312, 1947.
J. Bacteriology Vol. 53, June, 1947.

Literature on request.

CONSTITUENTS:
Hydrogen peroxide (90%) 2.5%
8-Hydroxyquinoline 0.1%
Especially prepared glycerol qs. ad. 120cc.
Supplied in four-ounce bottles

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Physical Medicine Abstracts

John S. Coulter, M.D.

SURGICAL MANAGEMENT OF VASCULAR LEG ULCERS

Howard C. Rees, M.D., and John G. Slevin, M.D.
Detroit, Michigan
In SURGERY, 21:4:575
April 1947

Ulcers of the lower extremity are primarily surgical cases. Too often surgery is thought of only after the patient has been given long periods of local treatment. Too much is expected of local treatment, one form of medication after another being tried before surgery is suggested.

After more than ten years' experience with such cases in the Peripheral Vascular Clinic of the Grace Hospital, we are convinced that the surgical approach to peripheral vascular ulcers not only shortens the period of treatment but also, in many cases, offer the only chance for a lasting cure.

Fluorescein Dye Tests — Skin temperature tests and fluorescein dye tests are especially helpful in those cases where ischemia and stasis appear together, as well as to determine the condition of circulation in the skin around the ulcer site. We have found the fluorescein dye test as dependable as either skin temperature or oscillometric determinations. Also, it gives more accurate information as to the level of arterial involvement and the character of capillary circulation in the skin.

Ten cubic centimeters of a 5 per cent intravenous solution of fluorescein dye and a mercury lamp make up the special equipment for this test. The lamp has a glass filter which excludes most of the light rays and transmit light only in the region of 3,600 angstrom units. The dye is slowely injected intravenously. In fifteen to twenty seconds, depending on the speed of the patient's circulation, all areas exposed to the lamp rays where the circulation is good will show an intense golden green hue. It becomes more intense as more of the dye diffuses from the capillaries into the tissues. Cross scratches on the leg make flourescent lines showing levels to which good circulation travels. Tissue with poor circulation shows as a dark purple color contrast.

EXTREMITY REFRIGERATION WITHOUT TOURNIQUET LIGATION IN CASES OF ACUTE ARTERIAL DEFICIT

Lt. (jg) Kenneth E. Livingston. M.C.,(S), U.S.N.R.
Boston, Massachusetts
In ANNALS OF SURGERY, 125:4:431
April 1947

Eperimental studies by Frederick Allen, in 1938 and 1939, demonstrated that intact limbs can survive complete ischemia for significant periods if adequately cooled. In 1941, these observations were applied clinically to amputation under tourniquet ligation and refrigeration. There is now considerable clinical experience to show that this method has real value in preparing for and reducing the risk of amputation in the presence of advancing gangrene and toxic absorption, or in cases of massive trauma to the limb. Absorption from the damaged tissue is terminated by the tourniquet, pain is rapidly alleviated by the cooling, and physiologic amputation is accomplished in the sense that the limb is isolated from the circulation. Anatomic amputation can then be undertaken at reduced risk, and in most instances without supplemental anesthesia.

Summary

Following an acute and severe vascular acci-

(*Continued on page* 44)

Streptomycin Experience Pointed The Way To This New, Improved Merck Form

IT PROVIDES

(1) increased purity

(2) minimum pain on injection

(3) uniformly high potency

Now available for Streptomycin therapy is this new form—Streptomycin Merck (Calcium Chloride Complex). Developed in The Merck Research Laboratories, where pioneer work on this valuable antibacterial agent was conducted, the new, improved form of Streptomycin is recommended as an adjunct in the treatment of certain types of urinary tract infection, selected cases of tuberculosis, and other infections due to susceptible strains of gram-negative organisms.

Ask for the New
DATA CHART

This new quick-reference chart gives essential data on the clinical uses, storage, preparation of solutions, administration, and dosage of Streptomycin Merck (Calcium Chloride Complex). It will be mailed to you on request. Write to Merck & Co., Inc., Rahway, N. J.





PHYSICAL MEDICINE (Continued)

dent secondary to traumatic aneurysm of the popliteal artery, cooling of the distal extremity was carried out for a period of 28 days prior to amputation. During the interval of observation, changes which were assumed by all observers to have been irreversible regressed, and the appearance of the foot strikingly improved. Following amputation there was gross and microscopic evidence that revascularization was taking place in the cooled tissues and that the nutrician of the deep muscle tissues and weightbearing skin and subcutaneous tissue of the foot had been well maintained. These studies did not indicate that the smaller circulation in the cooled areas had been extensively shut down by vasconstriction due to cold. On the contrary, we were impressed by the wealth of small patent vessels in all tissues and also by the active recanalization process in the thrombosed segments of major arteries.

THE ROLE OF PHYSICAL THERAPY IN RHEUMATIC DISEASE

Loring T. Swaim, M.D., Boston, Massachusetts

In THE PRACTITIONER, 945:158:185
March 1947

The role of physical therapy in medicine is to build a healthy body: one which will overcome disease when present. There are three parts to this role when the disease is rheumatic in nature. First, to develop a sound body: one in which all the organs inside the trunk can and do function to their full capacity. Second, to restore the muscles to full tone. Third, to mobilize the joints to the greatest possible range of motion. The first will often stop the disease and will make the second and third possible, and by improved vitality help the healing of the damaged tissues of the muscles and joints.

The physical therapist must understand the nature of different kinds of rhuematism and arthritis in order to treat these conditions intelligently.

Conclusion

The role of physical therapy is an essential one in the treatment of all joint conditions, and the care with which this form of treatment is planned may determine the time element in the progress of these difficult cases. The protection, expert instruction and the grading of treatment

(*Continued on page* 48)



"... started in the hospital and continued at home"*

*"Every infant, including every breast-fed infant, should receive vitamin D by mouth as early as practicable."**

White's Cod Liver Oil Concentrate Liquid provides natural vitamins A and D of time-proved cod liver oil—at a cost-to-patient of about a penny a day for antirachitic protection for the average infant. In Liquid form for drop dosage to infants—convenient, palatable, economical. Also available in Tablets and Capsules.

*Clements, F. W.: Rickets in Infants under One Year. The Incidence in an Australian Community and a Consideration of the Etiological Factors, Med. J. Australia, 1:336 (1942).

White Laboratories, Inc., Pharmaceutical Manufacturers, Newark 7, N. J.



"...just as important for older children..."[1]

"Older children require prophylactic doses of vitamin D until maturity, especially during periods of rapid growth."[2]

White's Cod Liver Oil Concentrate Tablets provide a pleasant, economical means of supplying *assured* antirachitic protection—wholly natural vitamins A and D in a form older children (2-14 years of age) enjoy taking regularly.

White's Cod Liver Oil Concentrate is wholly derived from time-proved cod liver oil itself. Liquid, Tablet and Capsule forms.

1. Nutting, R. E.: Minn. Med., 26:1039-1044 (Dec.) 1943
2. Kugelmass, I. N.: Newer Nutrition in Pediatric Practice, p. 653, Lippincott, Phil., 1940.

White Laboratories, Inc., Pharmaceutical Manufacturers, Newark 7, N. J.

Sal Hepatica

acts by simple osmosis, to increase the bowel's fluid content and soften fecal residue.

Gentle fluid bulk

produced by Sal Hepatica evokes peristalsis and evacuation by normal physiologic means.



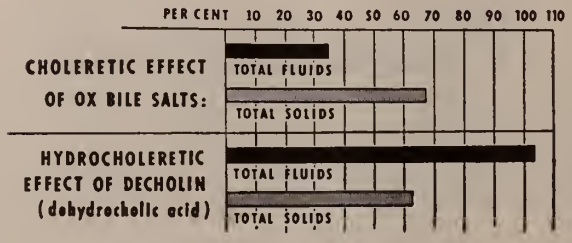
APERIENT

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PRODUCT OF BRISTOL-MYERS • 19 WEST 50 STREET • NEW YORK 20, N.Y.

DECHOLIN HYDROCHOLERESIS Encourages Biliary Tract Drainage



● **Percentage Increase in Composition and Quantity of Bile Flow**

Ivy, A. C., et al: Am. J. Dig. Dis. 7:333 (Aug.) 1940.

HYDROCHOLERESIS—

an increased production of thin liver bile—is a desirable approach to therapy of non-obstructive biliary tract disturbances.

DECHOLIN—

by producing an increased flow of bile—washes stagnant, infected bile from the intrahepatic and extrahepatic biliary passages, removing pus-laden material and discouraging the ascent of infection.

HOW SUPPLIED:

Decholin in 3¾ *gr. tablets. Packages of* 25, 100, 500 *and* 1000.

Decholin
BRAND · REG. U.S. PAT. OFF.
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PHYSICAL MEDICINE (Continued)

by the physical therapist under the doctors's direction, can and does shorten the period of illness. It may be the important factor in recovery.

Physical therapy has three essential things to deal with. First, the patient's control of his own muscles; second, his discipline in required work; and third, his cooperation with someone else. He also learns to control his body for his own good and to relax at will. The massage and the exercises are an easy way to teach him things about his body which he has possibly never learned before. The lack of this care and indisciplined living may have been factors in the causation of his illness, and in any case it can be a deciding factor in his recovery. The lessons learned under the watchful eye of a conscientious and intelligent physical therapist may prevent the next attack.

Another point: except for the nurse, the physical therapist spends more time with the patient than anyone else, and often learns more of the home problems, the disappointments, the fears and the frustrations of her patient. She has the golden opportunity to get over to her patient important lessons in living, cooperation and philosophy of life, if she is the right type. She can do much to help the doctor by her intelligent understanding of the significance of the things she hears. The caring doctor can learn much from such a physical therapist and can do much to encourage the patient to work for the things he needs to have: a robust body, a peaceful mind and a faith. The patient must be looked upon as a whole individual and treated as such.

NERVE INJURIES AFFECTING THE HAND

Nils L. Eckhoff, F.R.C.S.,
Surgeon to Guy's Hospital

In THE CLINICAL JOURNAL, No. 2097
July-August, 1947

Treatment

Massage. — Deep massage over a paralysed muscle can only do harm. Light effleurage may be permitted to maintain mobility of the muscle fibres.

Galvanism. — There is considerable difference of opinion over the value of galvanic stimulation. Some maintain that it is harmful, others that it

(*Continued on page* 50)



IN

Dietary Supplementation

MORE THAN ISOLATED NUTRIENTS

The observation that nutritional deficiencies rarely occur singly, and the fact that individual nutrients are not metabolized by themselves but in conjunction with others, are both well established. Hence dietary supplementation—in order to be effective—must provide more than merely isolated nutrients.

The dietary supplement of Ovaltine and milk presents a rational mixture of essential nutrients of wide clinical applicability. It supplies not only B complex vitamins, but also ascorbic acid, the fat soluble vitamins A and D, biologically complete protein, and readily utilizable caloric food energy in the form of fat and carbohydrate.

This dietary supplement is especially useful to compensate for the inadequacies of a deficient diet, and is valuable when given in conjunction with specific nutrients when specific deficiencies are detected. Easily digested and of low curd tension, it presents no undue digestive burden.

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Ovaltine

Three servings daily of Ovaltine, each made of ½ oz. of Ovaltine and 8 oz. of whole milk,* provide:

CALORIES	669	VITAMIN A	3000 I.U.
PROTEIN	32.1 Gm.	VITAMIN B_1	1.16 mg.
FAT	31.5 Gm.	RIBOFLAVIN	2.00 mg.
CARBOHYDRATE	64.8 Gm.	NIACIN	6.8 mg.
CALCIUM	1.12 Gm.	VITAMIN C	30.0 mg.
PHOSPHORUS	0.94 Gm.	VITAMIN D	417 I.U.
IRON	12.0 mg.	COPPER	0.50 mg.

*Based on average reported values for milk.

PHYSICAL MEDICINE (Continued)

diminishes muscle wasting and aids recovery. I think most people prescribe it. Patients certainly think it is doing them good and when they can see the muscle contracting.

Splinting. — All agree that it is paramount to support paralysed muscles to keep them from being stretched. Splints are designed for each type of palsy. For ulnar palsy the metacarpo-phalangeal joints must be flexed, to prevent harmful stretching of the intrinsics. For median palsey the thumb is held in front of the index metacarpal, and then well abducted, to relax the opponens and short abductor. For radial palsey the wrist and metacarpo-phalangeal joints should be held in extension — but *not* the inter-phalangeal joints. The old fish server cock-up splint is an abomination, and I think of no condition in which it is required. In radial palsy — or in burns — one has seen far too many hands ruined by keeping the fingers in extension, where they so rapidly get stiff, for which there is practically no cure.

By the same token let me remind you that the application of a splint does not indicate immobilization. Far from it. The joints must be put through their full range twice a day. Better still, it is possible with all these splints to arrange for elastic reaction to take the place of, and act like, the palsied muscles. This not only keeps the joints moving, but gives the antagonists something to work against.

Occupational therapy is designed specially for each type of palsy, and can well be executed with the splints in position.

WHIRLPOOL BATHS IN A GENERAL HOSPITAL

Capt. Louis N. Rudin (MC), A.U.S.

In THE MILITARY SURGEON, 101:2:125
August, 1947

Whirlpool baths are the most widely used hydrotherapeutic agents in physical therapy departments of army general hospitals. Whirlpool baths produce a marked hyperemia of the part treated, due to: (1) Local effects of the hot water. (2) Mild massage by the rushing stream of air and water. (3) Reflex vasodilation of the part, due to stimulation of the sympathetic nervous system.

Two types of whirlpool baths are available:

(*Continued on page* 52)

Theocalcin - prescribed with or without digitalis

Combinations of Theocalcin and digitalis are frequently prescribed to improve cardiac function in congestive heart failure. In other cases, when digitalis fails to give relief, Theocalcin in doses of 1 to 3 tablets t.i.d. is often effective.

Theocalcin is a well tolerated diuretic and myocardial stimulant which acts promptly to reduce edema, diminish dyspnoea and strengthen heart muscle.

Theocalcin is available in 7½ grain tablets and in powder form.



Theocalcin, brand of theobromine-calcium salicylate.
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BILHUBER-KNOLL CORP. ORANGE, NEW JERSEY.

TRI-SULFANYL permits greater bacteriostatic activity with a minimum potential of crystalluria. It is formulated on the new knowledge that "a saturated... solution of a sulfonamide could still be fully saturated with a second and third sulfonamide of different molecular structure..." By using "combinations of partial dosages of 2 or more therapeutically equivalent sulfonamides", the danger of precipitation in the urinary tract is sharply decreased. While two are appreciably safer than one, a mixture of three sulfonamide compounds is even "significantly less toxic."
(Proc. Soc. Exp. Biol. & Med. 64:393, 1947).

now! new safer sulfonamide therapy



tri-sulfanyl*
syrup and tablets

sulfathiazole
sulfadiazine
sulfamerazine

formula: Each teaspoonful of syrup (5 cc.) or each tablet contains:

Sulfathiazole 0.162 Gm. (2.5 gr.)
Sulfadiazine 0.162 Gm. (2.5 gr.)
Sulfamerazine 0.162 Gm. (2.5 gr.)

(Tri-Sulfanyl syrup also contains Sodium Citrate 0.375 Gm. (5.8 gr.) in a pectinized, vanilla flavored base.)

Professional samples upon request. *Trade Mark

casimir funk laboratories, inc.
affiliate of U. S. Vitamin Corporation
250 East 43rd Street • New York 17, N. Y.

PHYSICAL MEDICINE (Continued)

the continuous flow, for arm and legs, and the turbine type for arms, legs, and whole body (Hubbard tank).

Summary

1. Whirlpool baths are important therapeutic agents in the treatment of many surgical conditions encountered in a general hospital.

2. The therapeutic effects are due mainly to an induced hyperemia and mild massage.

3. The most effective type of apparatus is the turbine driven whirlpool bath.

4. Underwater exercise tanks are fairly efficient in the production and maintenance of mild fever (103°-104°F.).

5. Whirlpool baths are not curative in themselves, but they are important adjuncts to the proper surgical and medical management of patients.

THE EVE METHOD OF RESUSCITATION

Leon D. Carson, Capt. (MC) U.S.N. and
Joseph C. Pinto, Lt. Com. (MC) U.S.N.

In U. S. NAVAL MEDICAL BULLETIN,
47:4:650
July-August, 1947

The rocking technique also energizes a weak or failing circulation by stimulating cardiac action, increasing intravascular pressure (blood flow) and facilitating return of venous blood to the right heart. During the head-up or inspiratory phase, the thin walls of the great intrathoracic veins and to some extent the relatively thin walls of the auricles, expand and fill with blood under the "suction" effect of the increase in negative intrathoracic pressure increasing the effective venous pressure and consequently the venous return to the right auricle.

As the body is tilted head-down, the flow of blood along the great veins of the thorax and abdomen is aided by hydrostatic pressure, and by the increase in intrathoratic pressure. (Reduction in negative pressure.)

The rythmic hydrostatic pressures produced by the alternate head-up and head-down positions, serve to increase the intravascular pressure and consequently the flow of blood along the arteries and veins. Eve cites Hill's experiments in which cerebral circulation was maintained by alternating the head-up and head-down positions. This fact assumes major importance when it is realized that if cerebal circulation is stopped the cells of the cerebral cortex will be irreparably damaged within 5 minutes or so and the centers within the brain stem (the respiratory center as well) will succumb within 25 to 35 minutes. Hydrostatic pressure also tends to facilitate coronary circulation. During the head-down position the pressure produced by the column of blood in the aorta may serve to close the valves and perfuse arterial blood through the oxygen starved heart muscle via the coronaries.

The removal of wet clothing and the wrapping of the body in warm blankets to conserve body heat as well the administration of oxygen or any other form of treatment can be accomplished without loss of time or interference with the rhythm of rocking movement.

The physiological advantage of the Eve method have been presented in detail. In addition, it does not require a team of highly trained personnel; one man can operate the machine indefinately.

When CONCEPTION IS CONTRA-INDICATED

LACTIKOL JELLY and CREME

- Immobilize sperm INSTANTLY on contact.
- The pH of Lactikol Jelly and Lactikol Creme are both within the normal vaginal range.

Active Ingredients: Lactikol Jelly — Lactic Acid, 1.5%; Glyceryl Monoricinoleate, 1.0%; Sodium Lauryl Sulfate, 0.2%; Oxyquinoline Sulfate 0.05%. Lactikol Creme—Lactic Acid 0.5%; Glyceryl Monoricinoleate, 1.5%; Sodium Lauryl Sulfate, 0.6%.

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Experience is the Best Teacher

JOHN HUGHES BENNETT (1812-1875) proved it in histology

Bennett's experiences, gained by linking physiology with clinical medicine, led him to institute the practical study of histology, to recognize the medicinal value of cod liver oil, and to be the first to describe the blood condition leukemia — Bennett's disease.



R. J. Reynolds Tobacco Company, Winston-Salem, N. C.

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Books Received

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

BABY CARE FROM BIRTH TO BIRTHDAY: By Edmund G. Lawler, M.D., Associate in Pediatrics, Loyola University School of Medicine; Chairman, Pediatric Department, Little Company of Mary Hospital, Evergreen Park, Illinois; Licentiate, American Board of Pediatrics; Fellow, American Academy of Pediatrics. Wilcox Follett, 1255 S. Wabash Avenue, Chicago 5. Publication date February 2, 1948. Price $5.00.

DISEASES OF THE NOSE, THROAT AND EAR: By William Lincoln Ballenger, M.D., F.A.C.S., Late Professor, School of Medicine, University of Illinois, Chicago, and Howard Chas. Ballenger, M.D., F.A.C.S., Associate Professor and Acting Chairman of the Department of Otolaryngology, Northwestern University School of Medicine, Chicago; Assisted by John Jacob Ballenger, B.S., M.D., Research Fellow in Otolaryngology, Northwestern University School of Medicine, Chicago. Ninth edition, thoroughly revised, published October, 1947. 933 pages with 597 illustrations and 16 plates in color. Price $12.50. Lea and Febiger, Philadelphia.

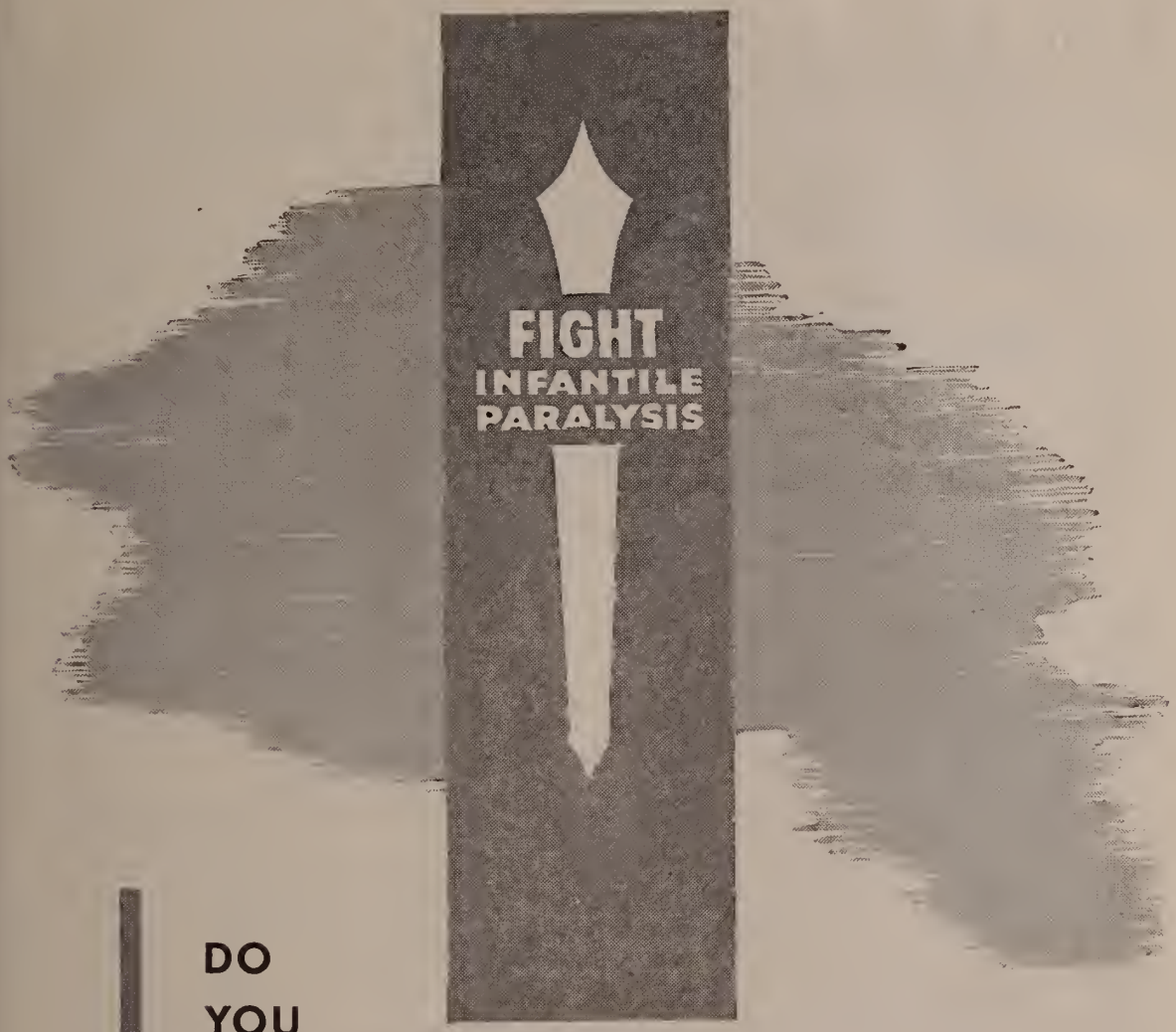
CLINICAL NEURO-OPHTHALMOLOGY: By Frank B. Walsh, M.D., F.R.C.S. (Ed.) Associate Professor of Ophthalmology, The Johns Hopkins University. Baltimore, The Williams & Wilkins Company, 1947. Price $15.00.

TEXTBOOK OF THE EAR, NOSE AND THROAT: By Francis L. Lederer, B.Sc., M.D., F.A.C.S. Professor and Head of Department of Otolaryngology, University of Illinois College of Medicine, Chicago; Chief of the Otolaryngological Service, Research and Educational Hospital; Director of Education and Chief of the Ear, Nose and Throat Services, Illinois Eye and Ear Infirmary; Captain, Medical Corps, United States Naval Reserve. And Abraham R. Hollender, M.Sc., M.D., F.A.C.S., Professor of Otolaryngology, Emeritus, University of Illinois College of Medicine, College; Attending Otolaryngologist, St. Francis Hospital, Miami Beach, Florida. 182 Illustrations. F. A. Davis Company, Publishers, Philadelphia, 1947. Price $7.00.

TEXTBOOK OF HUMAN PHYSIOLOGY: By William F. Hamilton, Ph.D., Professor of Physiology, University of Georgia School of Medicine. With 121 Illustrations. F. A. Davis Company, Publishers, 1947. Philadelphia. Price $6.00.

THE PRACTICE OF MENTAL NURSING: By May Houliston, R.G.N., R.M.N., R.F.N., Sister Tutor's Certificate, Royal College of Nursing; Forewood by P. K.

(*Continued on page* 58)



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McCowan, Barrister-at-law, Physician Superintendent, Crichton, Royal Mental Hospital, Dumfries. Baltimore; Williams and Wilkins Company, 1947. Price $2.75.

NURSING IN MODERN SOCIETY: By Mary Ella Chayer, R.N., A.M., Associate Professor of Nursing Education, Teachers College, Columbia University. G. P. Putnam's Sons, New York. Price $4.00.

BLOOD DERIVATIVES AND SUBSTITUTES: Preparation, Storage, Administration and Clinical Results Including a Discussion of SHOCK — Etiology, Physiology, Pathology and Management. By Charles Stanley White, M.D., Sc.D., Former Professor of Surgery, George Washington University School of Medicine; Chief of Surgery, Doctors Hospital; Consultant to Garfield Hospital, Providence Hospital, and Columbia Hospital, Washington, D. C., and to U. S. Naval Hospital, Bethesda, Maryland; and Jacob Joseph Weinstein, B.S., M.D., Associate in Surgery, School of Medicine, George Washington University; Associate in Surgery at Galliger Municipal Hospital and George Washington University Hospital, Washington, D. C. Baltimore; The Williams and Wilkins Company, 1947. Price $7.50.

JAUNDICE: Its Pathogenesis and Differential Diagnosis; By Eli Rodin Movitt, M.D., Acting Chief of Medicine, Veterans Administration Hospital, Oakland, California; Diplomate of the American Board of Internal Medicine; Major, Medical Corps, Army of the United States (Inactive). New York. Oxford University Press, 1947. Price $6.50.

CONGENITAL MALFORMATIONS: A Study of Parental Characteristics with Special Reference to the Reproductive Process: By Douglas P. Murphy, M.D., F.A.C.S., Assistant Professor of Obstetrics and Gynecology and Research Associate in the Gynecean Hospital Institute of Gynecologic Research, University of Pennsylvania. Second Edition. Philadelphia and London; J. B. Lippincott Company, 1947. Price $5.00.

A PRIMER OF CARDIOLOGY: By George E. Burch, M.D., F.A.C.P., Associate Professor of Medicine, Tulane University School of Medicine; Senior Visiting Physician, Charity Hospital; Consultant in Cardiovascular Diseases, Ochsner Clinic; and Paul Reaser, M.D., Instructor in Medicine, Tulane University School of Medicine; Assistant Visiting Physician, Charity Hospital, New Orleans. New Work, Published September, 1947. 272 Pages, 203 Illustrations; Price $4.50. Lea and Febiger, Philadelphia, Pa.

HANDBOOK ON FRACTURES: By Duncan Eve, Jr., M.D., F.A.C.S., Surgeon-in-Chief, Nashville, Chattanooga and St. Louis Railroad; Chairman of the Committee on Fractures of the Medical and Surgical Section of the American Railroad Association; Member of the Committee on Fractures of the American College of Surgeons, etc.; In Collaboration With Trimble Sharber, A.B., M.D., Attending Surgeon, St. Thomas

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Hospital, Nashville, Tennessee. Illustrated. St. Louis; The C. V. Mosby Company, 1947. Price $5.00.

THE FOOT AND ANKLE; THEIR INJURIES, DISEASES, DEFORMITIES AND DISABILITIES: By Philip Lewin, M.D., F.A.C.S., Professor of Bone and Joint Surgery and Acting Head of Department, Northwestern University Medical School; Professor of Orthopedic Surgery, Postgraduate Medical School, Cook County Hospital. 847 Pages. 389 Illustrations. Price $11.00. Lea and Febiger, Publishers, Philadelphia, Pa.

UNIPOLAR LEAD ELECTROCARDIOGRAPHY; INCLUDING STANDARD LEADS, UNIPOLAR EXTREMITY LEADS AND MULTIPLE UNIPOLAR PRECORDIAL LEADS: By Emanuel Goldberger, B. S., M.D., Adjunct Physician, Montefiore Hospital, New York; Cardiographer and Associate Physician, Lincoln Hospital, New York; Diplomate of the American Board of Internal Medicine; Clinical Lecturer in Medicine, Columbia University Faculty of Medicine. With 88 Illustrations. Lea and Febiger, Philadelphia, 1947. Price $4.00.

SURGICAL DISORDERS OF THE CHEST, DIAGNOSIS AND TREATMENT: By J. K. Donaldson, M.D., F.A.C.S., Diplomate American Board of Surgery; Associate Professor of Surgery and in Charge of Thoracic Surgery, University of Arkansas School of Medicine; Surgical Staff, St. Vincent's Infirmary and Visiting Staff, Baptist Hospital, Little Rock, Arkansas. Second Edition, Thoroughly Revised. With 146 Illustrations and 2 Color Plates. Lea and Febiger, Philadelphia, 1947. Price $8.50.

140 MILLION PATIENTS: By Carl Malmberg. Reynal & Hitchcock, New York. Price $2.75.

"NOSE DROPS" CAUSE SYMPTOMS OFTEN MISTAKEN FOR SINUSITIS

Something Like Habit-Forming Drugs, Says Doctor—The More You Use Them, The More You Need Them

Those who have the habit of using "nose drops" day after day are doing themselves more harm than good, says R. Wesley Wright, M.D., Palo Alto, Calif., in the current *Archives of Otolaryngology,* published by the American Medical Association.

Dr. Wright cites the cases of patients who have suffered from nasal congestion for as long as four years before discovering that the nasal drops that gave them temporary relief were actually the cause of the discomfort. Sometimes more serious conditions were found, too: loss of the sense of smell; destruction of the nasal membrane. In all the cases that he reports the nasal

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"NOSE DROPS" (Continued)

congestion was relieved from 24 hours to a few days after discontinuance of the medication, although in at least one case the sense of smell had not yet returned.

"Vasoconstrictor" is the medical name given to compounds that cause constriction of the blood vessels, thus producing less swelling in the nose and giving a larger opening for the passage of air. But, says Dr. Wright, the use of synthetic vasoconstrictors is likly to bring about nasal symptoms which are often unrecognized as those of drug sensitization. Every time the effects of the drug wear off, the swelling returns to produce even more nasal congestion than before.

"The patient comes complaining of nasal congestion which is constantly present," he writes. "Nasal drops, whichever are being used, will open the nasal passages well, and the breathing space then seems normal, but the congestion returns in about three hours. . . . The dependence on the medication is such that the medicament is carried at all times by the patient. . . .

"The history of the onset of the condition for which the nasal medicament was used varies. Usually the condition was an acute cold or a recurrent attack of chronic sinusitis. In other instances the onset was the nasal congestion association with pregnancy. . . . the patients were given drops to use until term, but the nasal congestion persisted. During colds they were given drops to use, or obtained them, and though the discharge usually ceased, the patients assumed that the condition had become sinusitis or some other chronic nasal condition."

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THE OBESE PATIENT. A STATISTICAL STUDY AND ANALYSIS OF SYMPTOMS, DIAGNOSIS AND METABOLIC ABNORMALITIES. SEX DIFFERENCES — TREATMENT

Henry M. Ray, M.D., Pittsburgh, Pa.
In AM. J. OF DIGESTIVE DISEASES, 14:5:153
May, 1947

The matter of exercise which is so important for increasing energy output is a very individual matter. Many of the obese patients, obese for years, have already reached the limit of their cardiac reserve and especially in the hypertensives with cardio-vascular disease, exercise is contraindicated. These patients get sufficient exercise in their daily work and must compensate for their necessary limitation of physical activity and lessened energy output, by a stricter diet, in order to adequately curtail the energy intake. There is no objection to passive exercise and massage. The advertised gymnastic emporia while safe for the younger and relatively healthy obese, is a menace to the middle-aged group, particularly those with cardio-vascular strain and degenerative musculoskeletal and arthritic disease.

The tuberculosis control program appears to have been quite successful among women so far as reduction of the death rate is concerned, while in the case of men the principal evidence of success has to do with the advancing age at death. Mary Dempsy, Am. Rev. Tbc., Aug., 1947.

A final diagnosis of tuberculosis should not be made on the first X-ray film, since a disturbing number of cases showing definite infiltrations of the lung fields will be found to have cleared completely on a re-examination two weeks later. Joseph D. Wassersug, M. D., N.E. Jour. Med., July 13, 1947.

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SHOULD VITAMIN D BE GIVEN ONLY TO INFANTS?

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But now a careful histologic study has been made which reveals a startlingly high incidence of rickets in children 2 to 14 years old. Follis, Jackson, Eliot, and Park* report that postmortem examination of 230 children of this age group showed the total prevalence of rickets to be 46.5%.

Rachitic changes were present as late as the fourteenth year, and the incidence was higher among children dying from acute disease than in those dying of chronic disease.

The authors conclude, "We doubt if slight degrees of rickets, such as we found in many of our children, interfere with health and development, but our studies as a whole afford reason to prolong administration of vitamin D to the age limit of our study, the fourteenth year, and especially indicate the necessity to suspect and to take the necessary measures to guard against rickets in sick children."

*R. H. Follis, D. Jackson, M. M. Eliot, and E. A. Park: Prevalence of rickets in children between two and fourteen years of age, Am. J. Dis. Child. 66:1-11, July 1943.

MEAD'S Oleum Percomorphum With Other Fish-Liver Oils and Viosterol is a potent source of vitamins A and D, which is well taken by older children because it can be given in small dosage or capsule form. This ease of administration favors continued year-round use, including periods of illness.

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The ILLINOIS Medical Journal

VOL 93 NO 2

February, 1948

Lancaster's Technique of Cataract Extraction

+

Carcinoma of the Large Bowel

+

.... and Other Original Articles

(See page 33 for complete Table of Contents)

ANNUAL MEETING, ILLINOIS STATE MEDICAL SOCIETY
PALMER HOUSE, CHICAGO, MAY 10, 11, 12, 1948

OFFICIAL JOURNAL OF THE ILLINOIS STATE MEDICAL SOCIETY



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in dysmenorrhea

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In the opinion of many clinicians, "pelvic distortion . . . is the most serious result of rickets."[1] Severe deformities which "obstruct childbirth and may cause death of both mother and infant"[2] as well as "the so-called 'simple flat' pelvis"[3] are often "rachitic in origin."[3] In the prevention of rickets and other vitamin deficiency syndromes, the use of Vi-Penta Drops 'Roche' offers clinically important advantages. The drops are willingly taken even by "difficult" patients since they are miscible and may be added to milk, fruit juice or other foods without significantly affecting the flavor. The comprehensive formula of Vi-Penta Drops supplies in each 10-minim dose no less than 1000 U.S.P. units of vitamin D *plus* ample amounts of vitamins A, B_1, B_2, C and niacinamide. Vi-Penta Drops are available in 15-cc and 30-cc vials. For a free trial supply, write to department V-3, Hoffmann-La Roche Inc., Roche Park, Nutley 10, New Jersey.

1. F. Bicknell and F. Prescott, The Vitamins in Medicine, Grune & Stratton, 1946.

2. M. M. Eliot and E. A. Park, Brennemann's Practice of Pediatrics, W. F. Prior Co., Inc., 36:66, 1946.

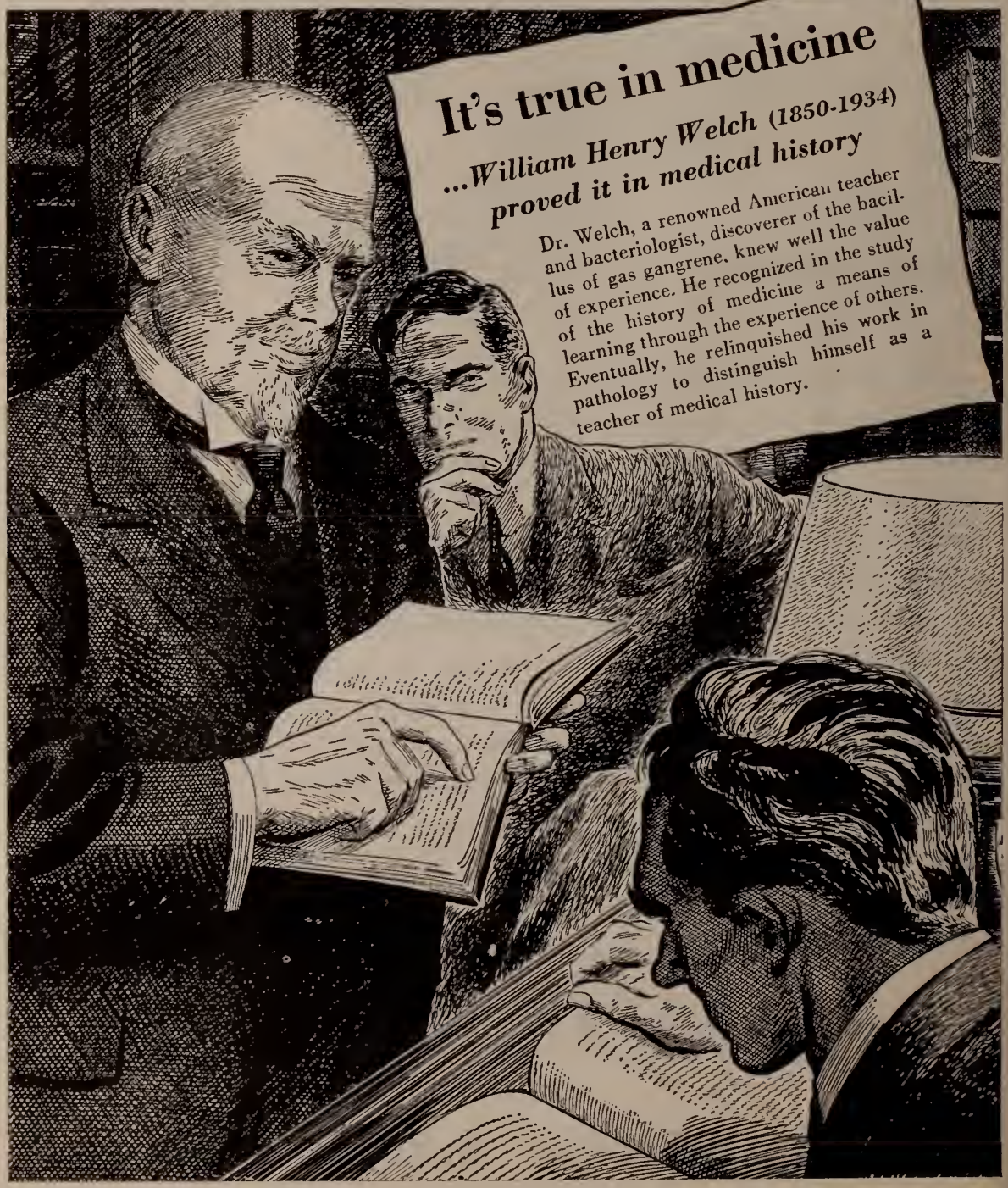
3. J. B. De Lee and J. P. Greenhill, Obstetrics, W. B. Sanders, 1943.

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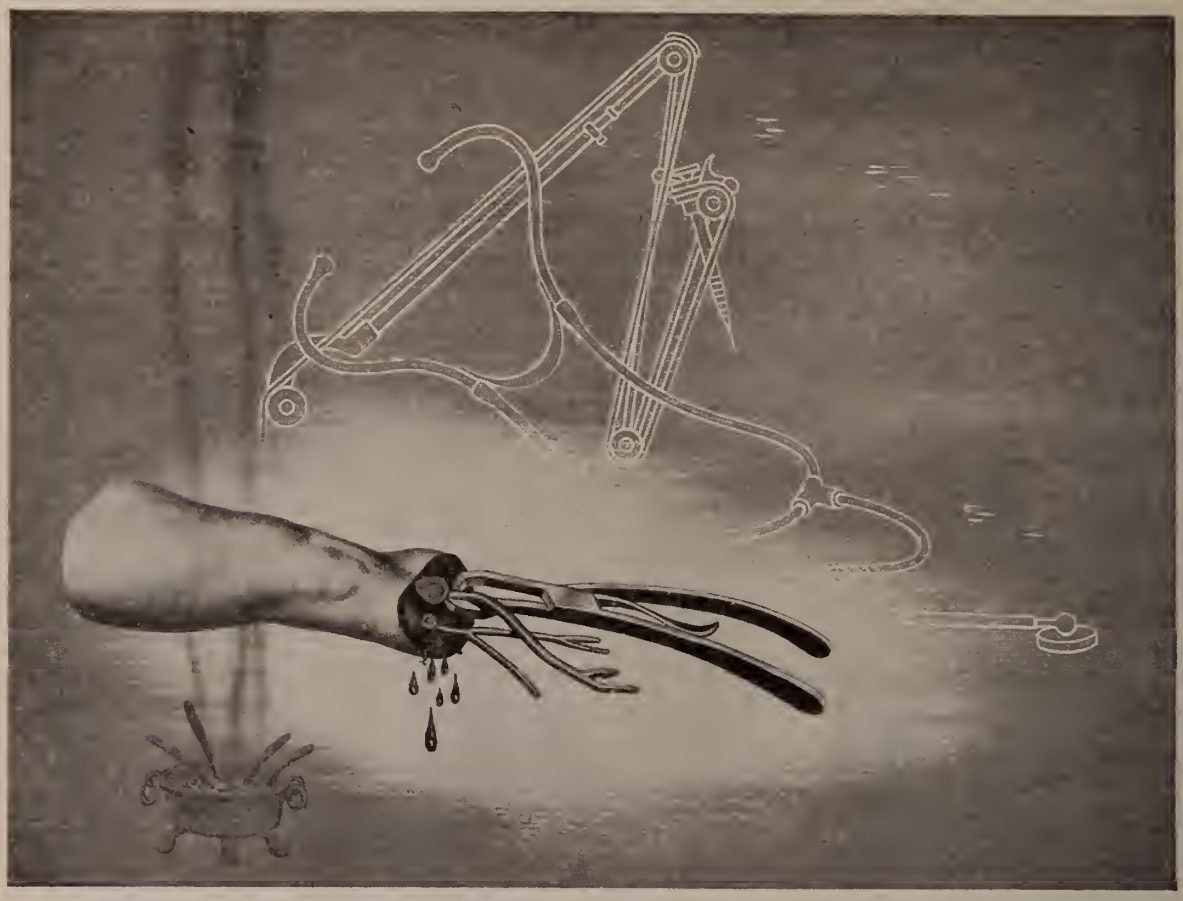
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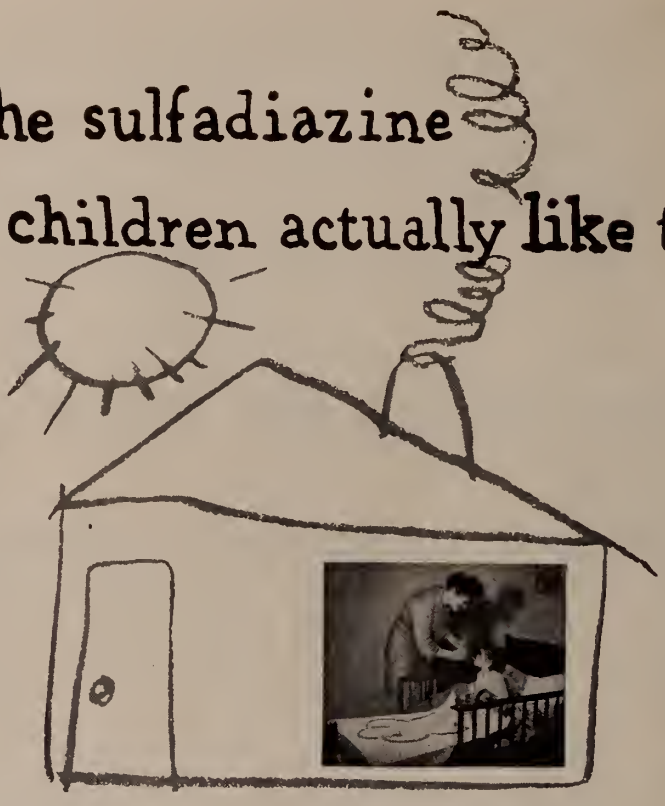
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**Am. J. M. Sc. 210:141, 1945*

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44...

OF NEMBUTAL'S CLINICAL USES

SEDATIVE

Cardiovascular
Hypertension[1]
Coronary disease[1]
Angina[1]
Decompensation
Peripheral vascular disease

Endocrine Disturbances
Hyperthyroid
Menopause—female, male

Nausea and Vomiting
Functional or organic disease (acute gastrointestinal and emotional)
X-ray sickness
Pregnancy
Motion sickness

Gastrointestinal Disorders
Cardiospasm[2]
Pylorospasm[2]
Spasm of biliary tract[3]
Spasm of colon[2]
Peptic ulcer[2]
Colitis[2]
Biliary dyskinesia

Allergic Disorders
Irritability
To combat stimulation of ephedrine alone, etc.[3,1]

Irritability Associated With Infections[4]

Restlessness and Irritability With Pain[5,4]

Central Nervous System
Paralysis agitans
Chorea
Hysteria
Delirium tremens
Mania

Anticonvulsant
Traumatic
Tetanus
Strychnine
Eclampsia
Status epilepticus
Anesthesia

HYPNOTIC
Induction of Sleep

OBSTETRICAL
Nausea and Vomiting
Eclampsia
Amnesia and Analgesia[6]

SURGICAL
Preoperative Sedation
Basal Anesthesia
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PEDIATRIC
Sedation for:
Special examinations
Blood transfusions
Administration of parenteral fluids
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Preoperative Sedation

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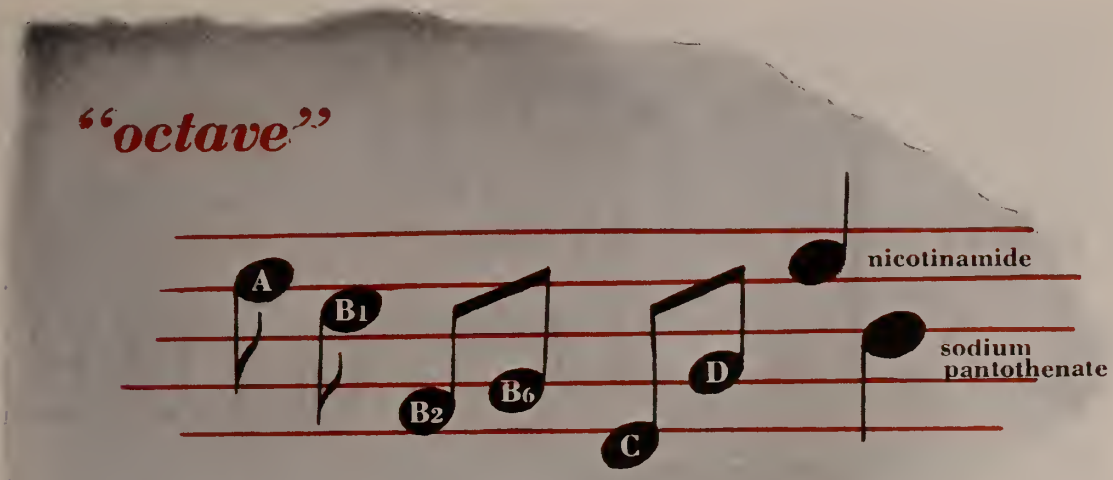


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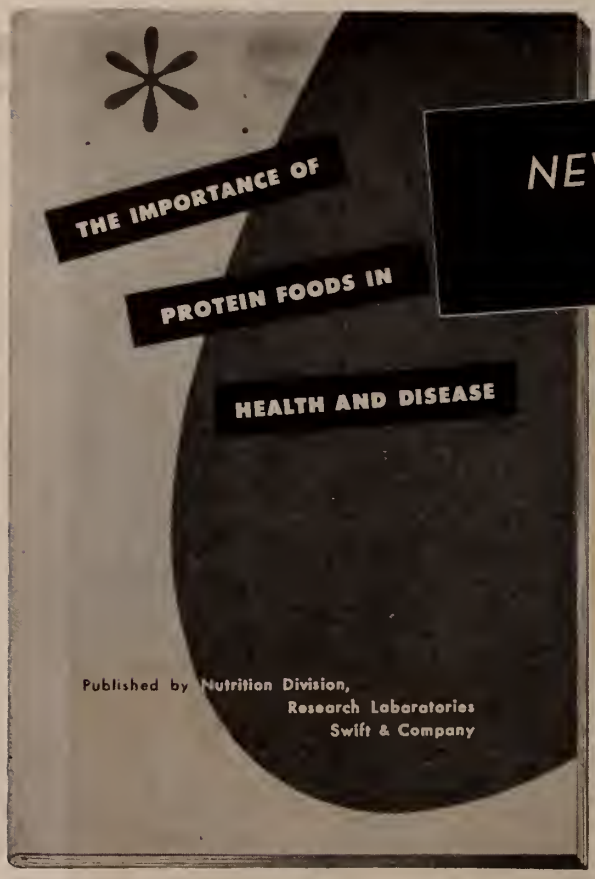
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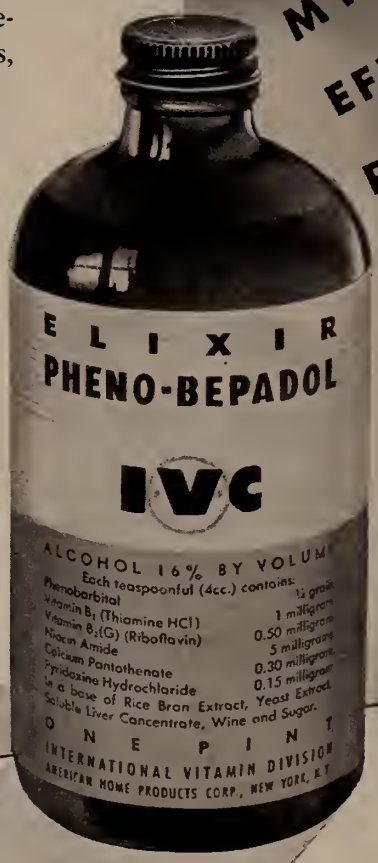
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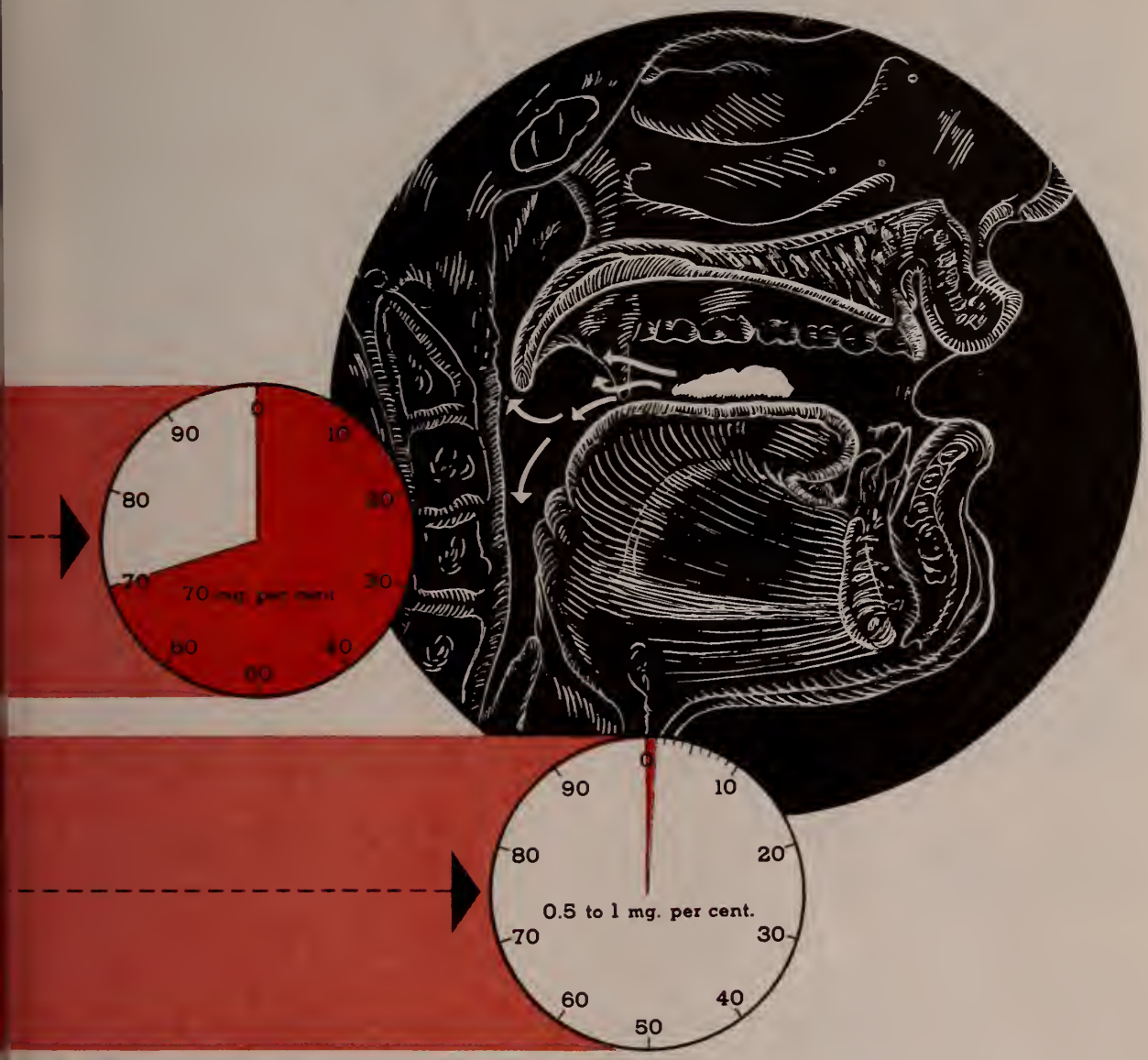
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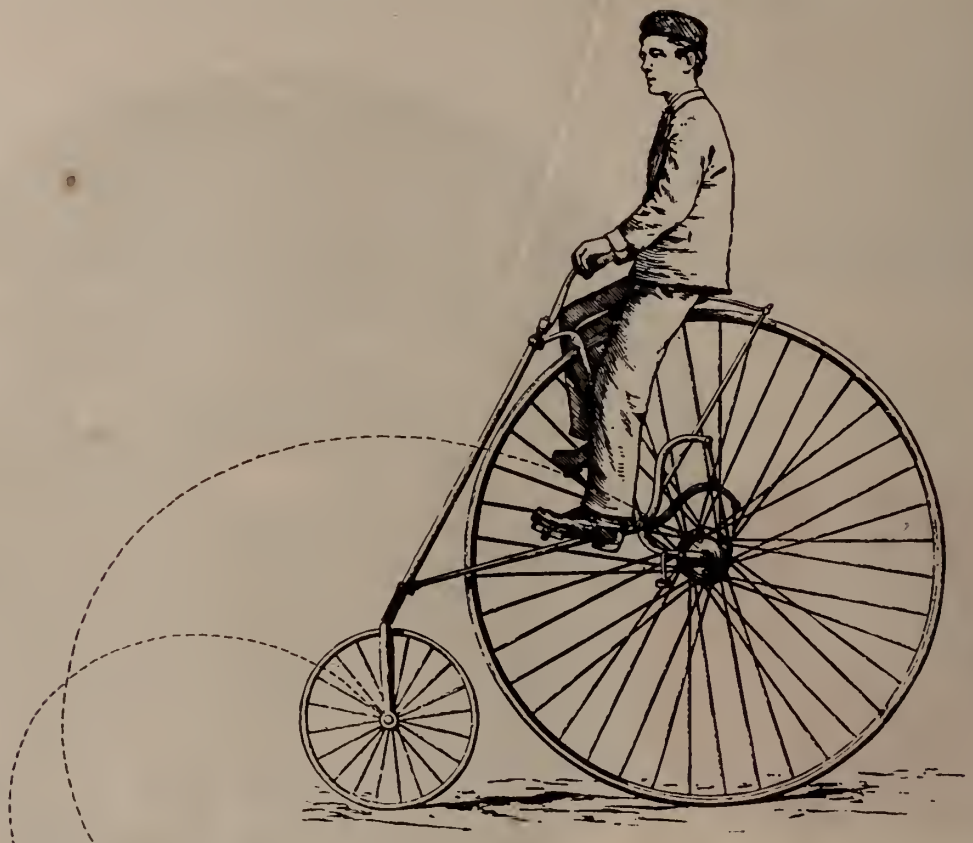
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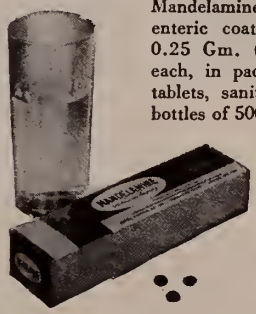
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The Illinois Medical Journal

February, 1948

VOL. 93, NO. 2

Official Journal of the Illinois State Medical Society

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Editorials

THE A. M. A. INTERIM SESSION AT CLEVELAND

In December, 1946 the American Medical Association held a mid-winter session of its House of Delegates in Chicago. At the 1947 Annual Meeting in Atlantic City it was decided that an Interim Session of the House of Delegates should be held each year, and that it was to be held outside of the city of Chicago, taken in turn to various parts of the country. It was also decided that a two day scientific session would be held at the same time, the programs being arranged especially for the general practitioner.

The meeting was scheduled for January 5-8, and the city selected was Cleveland. It was not possible to arrange a meeting in Cleveland during December on account of a number of other large conventions previously scheduled, so it was necessary to hold the meeting early in January. This was rather unfortunate as it was extremely difficult to get adequate hotel or railroad accommodations, especially when so many students were returning to their respective colleges or universities following the Holidays.

The Mid-West Regional Conference of the A. M. A. Council on Medical Service was scheduled for Sunday, January 4, with an excellent program for the societies of the six states in this area. Three basic subjects were scheduled for the morning session as follows:

1. Services the A. M. A. can render to medical societies
2. The Council on Medical Service
3. Improving A. M. A. Services to Medical societies

The first subject was presented by five speakers: W. W. Bauer, Director, Bureau of Health Education; Mr. Thomas G. Hull, Director, Committee on Scientific Exhibits, Mr. J. W. Holloway, Jr., Director, Bureau of Legal Medicine and Legislation, Mr. A. W. Stack, Director, Membership, Fellowship and Subscription Department, and Mr. Ralph Creer, Secretary, Committee on Medical Motion Pictures.

These were all excellent talks and give in detail, information concerning the activities of the A. M. A. and its effort to give various types of services to constituent state medical societies. These talks would have been of unusual interest to all county society officers as well as to the membership of the state societies as a whole.

Dr. A. W. Adson, Vice Chairman of the Council on Medical Service, gave an interesting discussion of the activities of this Council and its desire to cooperate in every way possible with the state societies. The third subject was presented in the form of a round table discussion. Questions and suggestions as to how A. M. A. services to medical societies could be improved brought out a number of things which will be given serious consideration by the parent organization in the near future.

Immediately following the luncheon Dr. R. R. Sayers, Chairman of the Medical Advisory

Board, United Mine Workers of America Welfare and Retirement Fund, told of the work which is being done to aid this group in getting proper medical supervision and care for those entitled to such care under the provisions which have been set up.

Dr. Joseph Lawrence, Director of the Washington Office under supervision of the Council on Medical Service, gave an interesting talk on the various bills now under consideration in Washington, commenting on these bills in detail.

The remainder of the afternoon was devoted to the hearing of a symposium on "Modern Medical Public Relations". James H. Hutton, Chairman of the Illinois State Medical Society Committee on Medical Service and Public Relations, was moderator for this interesting symposium in which three public relations counsels presented different phases of this important and timely subject. Following their talks, there was a question and answer period which brought out interesting information. As would be expected, a number of projects were presented which it was thought would improve these services.

The House of Delegates had a two day session Monday and Tuesday with an excellent attendance from all states. The transactions of the House were conducted more smoothly than at previous meetings, principally on account of some recommendations which were made at the Atlantic City meeting last June to streamline the activities of the House of Delegates. Several changes were made at this meeting which many of the delegates present thought were of material aid and added to the interest of the sessions.

The usual number of resolutions were introduced, referred to the appropriate reference committees, which in turn reported back to the House at a later session where appropriate action was taken.

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There had been quite an unusual interest expressed in the decision of the Board of Trustees to present a medal to the outstanding general practitioner of the country at the Cleveland meeting. It was rather unfortunate that many societies were not aware of this award, and particularly the procedure to be followed. Consequently the names of many prominent general practitioners from a number of states were not presented in time to be given consideration for the first annual award.

The names of three men were presented to the House of Delegates by the Board of Trustees, and a vote was taken. Dr. Archer Chester Sudan of Kremmling, Colorado, a town of 597 inhabitants, was selected for the honor. He was brought to Cleveland by plane to receive the award. It was interesting to note that Doctor Sudan received his medical education in Illinois and was a resident of this state for 17 years before going to Colorado. He was on the staff at the University of Chicago where he was doing research work when he went to Colorado on a fishing vacation. He went through Kremmling, and liked it so well in this small town, recognized the need for a general practitioner, and soon after, moved into this community to establish his practice.

There were as usual a large number of scientific and technical exhibits displayed at the Cleveland Auditorium, arranged especially for the general practitioner. The attendance at the meeting was very light, as the majority of those present were from the state of Ohio. It seems quite probable that many who desired to go to the Cleveland meeting were unable to get suitable hotel accommodations as well as reservations on railroads.

It was the general impression of many who were present that in the future at Interim Sessions efforts should be made whenever possible, to schedule these meetings during December, rather than during the early part of January. This should insure a larger attendance and increase the interest in a mid-year scientific session.

A GOOD MARK TO SHOOT AT

The entire membership of the Illinois State Medical Society has received a letter from the Secretary's office telling in some detail the purposes of the Medical Benevolence Fund which was created some seven years ago to aid disabled members, widows or dependent children of former members, and which has been functioning satisfactorily since its inception.

Accompanying the letter was a subscription card and return self-addressed envelope so that the members desiring to do so, could send in their contribution to the fund. The response was good, but not what was hoped for, as there are more applications for benefits being received each month, and the checks to beneficiaries increased in keeping with the present day trends.

The Aux Plaines Branch of the Chicago Medical Society, of which the Chairman of the Committee on Medical Benevolence is a member, recently sent letters to their entire membership asking them to subscribe to this important fund. So far appoximately $1,200.00 has been received from this Branch Society alone, and we have been informed that more money will be forthcoming in the near future. Various suggestions have been received by the Secretary from individual members as well as from component societies, in which they have recommended a number of ways in which the Benevolence Fund can be quickly built up so that it will adequately care for all beneficiaries in the future.

Some of these suggestions, we have been informed, will be incorporated into resolutions which will be introduced in the House of Delegates at the annual meeting next May, and which will be acted upon at that time, but in the meantime, the Chairman of the Committee and others are anxious to see better returns from the membership as a whole. One physician in a distant state who had been receiving the Illinois Medical Journal over a period of years, and noting that we have a Medical Benevolence Fund, and being interested in its operation, sent a check for $30.00 to be added to this fund. Several others on the Journal mailing list have likewise sent a check to be added to this fund, stating that they are thoroughly in accord with the project and it is most deserving, in their estimation.

A generous remittance was received from an elderly physician for many years a member of the Illinois State Medical Society but who has been compelled to retire from practice. He stated frankly that he now has funds available although some day, like many others, might be a candidate for assistance; consequently, he was desirous of sending his contribution to a most worthy cause.

It is rather unfortunate that we are not per-

mitted to refer to many letters which have been received from beneficiaries, as only the members of the Committee on Medical Benevolence actually know who the beneficiaries are, and this was so arranged when the By-laws of the Society were amended to make the projcet possible. It is quite obvious, however, that many have been materially helped through this aid to which they are entitled by virture of membership in the Society over a long period of time. Some present beneficiaries are well past the age of 90, and have lived so far beyond their life expectancy that the funds on retirement were not sufficient to take care of them at the time when finances were so essential to their well being.

We hope that other component societies, or branch societies, will emulate the fine example set by the Aux Plaines Branch which has indeed set a fine target which will require expert marksmanship to excel, but it can be done.

COMMITTEE ON ARRANGEMENTS FOR 1948 ANNUAL MEETING

The 1948 Annual meeting of the Illinois State Medical Society will be held at the Palmer House, Chicago, on Monday, Tuesday and Wednesday, May 10, 11, 12. Plans are well under way to have once more an outstanding meeting this year. All committees have been selected and are working together to do everything possible to assure the membership of the Society that their interests will be well cared for during the Annual Meeting.

Committee on Arrangements

Dr. Raleigh C. Oldfield of Oak Park was selected as General Chairman of the Committee on Arrangements and Dr. Maurice M. Hoeltgen, Chicago, as Vice Chairman. The Advisory Committee to the Committee on Arrangements is composed of the following physicians:

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Fred H. Muller, Chairman, 8056 South Justine, Chicago
Leo P. A. Sweeney, Vice Chairman, 9300 South Ashland, Chicago
Percy E. Hopkins, 800 West 78th Street, Chicago
Charles H. Phifer, 30 North Michigan Avenue, Chicago
Harry M. Hedge, 30 North Michigan Avenue, Chicago
Warren W. Furey, 104 South Michigan Avenue, Chicago
Willard O. Thompson, 700 North Michigan Avenue, Chicago
Kyle C. Hawkins, 5200 West Chicago Avenue, Chicago
Darwin B. Pond, 4753 Broadway, Chicago
Robert H. Newell, 1011 Lake Street, Oak Park
Walter C. Bornemeier, 55 East Washington Street, Chicago

COMMITTEE ON TECHNICAL EXHIBITS

Arkell M. Vaughn, Chairman, 30 North Michigan Avenue, Chicago
Harold C. Voris, Vice Chairman, 31 North State Street, Chicago
Joseph C. Coyle, 1180 East 63rd Street, Chicago
John E. Stanton, 2376 East 71st Street, Chicago
Herbert T. Nash, 31 North State Street, Chicago

WOMEN PHYSICIANS COMMITTEE

Luella E. Nadelhoffer, Chairman, 6 North Michigan Avenue, Chicago
Katharine W. Wright, Vice Chairman, 811 Lincoln Street, Evanston
Georgiana Theobald, 715 Lake Street, Oak Park
Johanna Heumann, 5639 Blackstone Avenue, Chicago
Edith Farnsworth, 700 North Michigan Avenue, Chicago
Huberta Livingstone, Billings Hospital, 59th and Ellis, Chicago
Helen Patton, 250 East Superior Street, Chicago

These committees are all working diligently to be sure that all local plans are made well in advance of the meeting so that the best interests of the membership as a whole are well cared for, and that everyone will be thoroughly informed as to the various phases of the meeting well in advance of the meeting dates. Meetings of the Committies will be held to go over all plans in detail, and the members of the Illinois State Medical Society may be assured that their interests will be kept in mind while the plans are being formed.

SCIENTIFIC MOVIES AT THE 1948 ANNUAL MEETING

Scientific Motion Pictures will be shown for the first time at the Annual Meetings of the Illinois State Medical Society in connection with the scientific exhibits, and under the supervision of the Director of Exhibits and his staff. A room has been reserved for this showing in connection with the 1948 Annual Meeting at the Palmer House on May 10-12, and the films are now being carefully selected. A regular schedule will be available throughout the meeting giving the name of the films and the time of their showing each day. There will be standard equipment in care of an experienced operator available, and the schedule will be published as a part of the official program to be distributed at the meeting.

Those interested in showing their scientific motion pictures at this meeting should get in touch immediately with John A. Mart, M.D., Director of Exhibits, 700 North Michigan Avenue, Chicago; telephone Delaware 3022. It is the desire of the committee to get the best possible films for this purpose and application forms are available which will be sent by Dr. Mart to any member who has good films which can be used in the motion picture theater during the meeting.

This is a new feature at the Annual Meetings of the State Medical Society and it is hoped that the response will be so good that this may be continued in other years and become a part of the scientific exhibits which have become one of the most interesting features of modern medical meetings. As has been the case in recent years, the Red Lacquer Room of the Palmer House will be filled with interesting scientific exhibits which will appeal to all present at the Annual Meeting.

THANK YOU DOCTOR

The members of the Illinois State Medical Society have been most responsive to the many demands on them for talks before lay and scientific groups. Certain members have been approached several times in keeping with the policy that, whenever possible, the wishes of the local group would be fulfilled. Even though the Committees responsible for the respective functions of scientific and lay education are cognizant of frequent approach to one individual, the policy is adhered to, principally because the individual

physician has a right to know that his services have been requested and to decline if the specific time is not convenient.

To the doctors of medicine and lay persons of authority who cooperate in the Scientific, Postgraduate and Lay Educational panels, the Committees of the Illinois State Medical Society, responsible for these functions, express their gratitude and appreciation. It is this unselfishness that is perhaps the most laudatory of all human characteristics, but one which is concomitant with the research side as well as the active practice of medicine.

Praiseworthy as this characteristic is the Committees realize, however, that to obviate unnecessary detail being placed on the individual physician, a note of practicality must be struck. Program chairmen, therefore, are urged to approach their speakers through the Chicago Office of the Illinois State Medical Society where the activities for the Educational, Scientific and Postgraduate Committees are conducted.

While the list of Speakers, prepared by the Scientific and Postgraduate Committees, is avail able to program chairmen and secretaries of county medical societies to help in arranging certain programs, these individuals are urged, after selection of their speaker to communicate with the Office of the Educational Committee so that invitations, acceptances and publicity can be systematically carried out. The work can thus be expedited on a smooth scale, saving the time of both the invited speaker and the local secretary or program chairman. In every instance one or two alternate speakers should be designated, to insure the rapid completion of a program.

Usually a county medical society has a definite meeting date. One meeting of the local Committee on Arrangements, therefore, should suffice to draw up a year's schedule which could be then sent to the Office of the Educational Committee. Three societies who have done this advantageously for the current year are the Will-Grundy County Medical Society, Logan County Medical Society and the Vermilion County Medical Society.

Individual physicians are urged to refer their requests to the Office of the Educational Committee where the correspondence and details can be handled with the least possible inconvenience to the busy practitioner and the secretary and program chairman who, too, it must be recalled, are practicing medicine.

To all the persons who have cooperated so effectively in the educational services, both lay and scientific, the Committees express their thanks. Special acknowledgement is given to the persons who have accepted short notice invitations and served as "pinch-hitters" in some programs. Manifestly, this expresses the best possible public relations — good organization teamwork.

The speakers services are maintained by the individual physician through his dues in the Illinois State Medical Society and his time is given to carry out the purposes for which the Committees were created: professional and lay education.

Dr. Charles P. Blair, Monmouth, is Chairman of the Educational Committee and Dr. Robert S. Berghoff, Chicago, Chairman of the Scientific Service and Postgraduate Committees. Requests for speakers should be sent to Miss Ann Fox, 30 North Michigan Avenue, Chicago 2, who is secretary of the three committees.



Medical Economics

The Medical Economics Committee — Chauncey C. Maher, Chmn., 6 North Michigan Avenue, Chicago, Edwin S. Hamilton, V. Thomas Austin, Emmet B. Bay, Jay McDonald Milligan, George Halperin, Marie Wessels, Thomas C. Browning, Roland R. Cross, Milton E. Bitter, Edwin F. Hirsch, Ford Hick, Carroll C. L. Birch, Hubert L. Allen.

CONTINUATION EDUCATION FOR PHYSICIANS

An alert physician continues his "learning" after graduation and hospital service by observations in his daily work, reading, attendance at staff meetings, and other society meetings, and occasional "courses." The incentive to learn is fostered by his daily experiences which highlight the gaps in his information and which render his reading so valuable. Much of the ultimate success of a physician is governed by his capacity to learn as he goes along. The layman calls him "an experienced physician."

Attendance at hospital staff meetings is profitable continuation education, especially when everyone takes part. Participation in such staff conferences by the pathologist and roentgenologist of the hospital staff have proved invaluable as a teaching routine. The small hospital uses this procedure with profit. However, little more in education effort is convenient for a small hospital. In large hospitals and especially in teaching hospitals the house staff of alert students, internes, and residents assures that the education of the staff will continue. The student has a role as the teacher. In the present post-war effort to increase training opportunities quite a number of hospitals have been given temporary approval for resident training in one or more specialties. Every effort to extend training opportunities has been helped by the Council on Medical Education of the American Medical Association and the specialty Boards. *There is no question that these alert residents benefit the hospital and its staff.* Possibly the residents are at times exploited by doing largely routine work. This routine may lack the critical thinking about the problems of patients which is the essential training of the specialist. In short the hospital may overstep its true capacity as an educational institution by using residents too much and training them too little. For the residency to continue its approved status the hospital staff must work at the training of the young men.

The Chicago Medical Society beginning in 1944 has staged the Annual Clinical Conferences, a one week intensive post-graduate program for the general practitioner. This year the Society will present courses of one week each on Cardiovascular Diseases and on Gastroenterology. The post-graduate committee of the Chicago Medical Society includes several leading medical educators.

The Illinois State Medical Society has since 1938 held clinics for one day at roughly yearly intervals in each downstate councilor district. The annual convention of the Illinois State Medical Society is a real contribution to continuation training. The Committee on Scientific Programs has recently issued in a cleverly catalogued pamphlet a list of speakers available for professional audiences. This Committee supplies speakers for county society meetings. This Journal is a part of the continuation education effort of the society.

And what does Chicago offer for post-graduate training the medical schools?

These opportunities are listed in the J. A. M. A., Volume 132, pages 937 and 1026 (Dec.) 1946. The Cook County Graduate School of Medicine presents a series of short courses and also accepts enrollees who can spend a few hours a week in study. The faculty is the attending staff at the Cook County Hospital. Courses are

eminently practical with maximum opportunity for study of disease in the patient.

The Michael-Reese Hospital has a Post-Graduate School offering both long-term and short-term courses. Probably the best known course is that in Electrocardiography by Dr. Katz. There are long-term opportunities for research in the basic sciences for men interested in specialization.

The University of Illinois has a policy of avoiding short refresher courses and plans to concentrate available energy on long term training efforts. The faculty will of course participate as individuals in many short courses arranged by others as at the Cook County Graduate School of Medicine, and by giving a few courses of short duration for which no other facilities are available, as refresher work in obstetrics and in bronchoscopy. There are special courses in otolarynogology of nine month duration and a basic science course of nine months offered each year.

Northwestern University Medical School officially limits its efforts to long-term training of residents who have appointments at a participating hospital. The University especially supplies the basic science part of this training. The needs of the individual residents are fitted into the program into departments of particular interest. Northwestern emphasizes that the basic science training should come before or during clinical training, and not at the end of a specialists training.

Facilities are available at the University of Minnesota for physicians from within and from outside that state. They have a unique building where students may be housed for several days while living at the University for a Refresher Course. The building was made available through federal funds during the depression. University efforts have held down costs and held up the excellence of instruction. They use as visiting professors numerous nationally known teachers who live with the student group for the few days they are on the campus. The University of Minnesota accepts out-of-state physicians in these courses. Inquiries should be directed to The Dean, University of Minnesota, Medical School, Minneapolis, Minn.

At the University of Michigan there is now a Department of Post-Graduate Medicine which administers a wide program of training of specialists, and refresher courses of two months duration in "Clinical Applications of the Basic Sciences," "Internal Medicine," and "Course for Practitioners." In addition the University offers short courses of six days or less in a variety of the specialties. Throughout the summer physicians may spend Wednesday, Thursday and Friday in attendance at carefully planned courses. On Wednesday the program deals with Surgery; on Thursday with Psychiatry, Dermatology, and Medicine; and on Friday with Pediatrics and Infectuous Diseases. An interesting extension project is sponsored by the Michigan State Medical Society, The University of Michigan Medical School, Wayne University College of Medicine, and the Michigan State Department of Health. These evening meetings are held twice each spring at various centers. Also two days of a similar extension course are held on the upper peninsula annually in the spring.

Participation of the individual physician is the crux of planning all manner of refresher training. Everyone assumes that there is no problem of refresher training of specialists, who have as a group a record of good attendance at their own meetings and who study the literature of their own field. In Michigan only a small fraction of the general practitioners in the state have attended any intra-mural courses at Ann Arbor. As competition has developed between general practitioner and specialist the general man is forced to undertake a vigorous study program or take a back seat. Perhaps the Illinois State Medical Society can assist in some other way with the continuing education of its members. Certainly the society could explore every aspect of the participation of the individual doctor in continuation education including the economic factors. The schools will welcome suggestions.

At present the bulk of post-graduate teaching effort goes to train young specialists. Cannot further attractions be imagined which will attract the participation of most physicians in continual self-education?

The leadership of the Illinois State Medical Society is needed both in stating the objectives of continuing education for doctors, and in assisting even more aggressively now than ever before with dissemination of the proven newer things to individual physicians. Perhaps someone can

(*Continued on page 74*)

State Department of Public Health

NATIONAL PUBLIC HEALTH SERVICE PLANS

At a meeting in Washington with the Surgeon General of the U. S. Public Health Service during the first week in December 1947, the Association of State and Territorial Health Officers voted to support a plan suggested by Surgeon General Parran for the Federal government to subsidize the education of physicians in much the same way as the government now subsidizes the education of officers for the army, navy and marine corps. This proposal also has the support of the Administrator of the Federal Security Agency, Oscar R. Ewing, and will doubtless be submitted to the President for his consideration. The end in view is to meet the present and anticipated shortage of physicians and to effect a more equitable distribution of physicians.

The Association also voted in favor of resolutions which would include the education of dentists and nurses and allied professions in the proposed Federally aided program.

Each beneficiary of the educational grants under the proposed plan would be obligated, upon graduation, to spend one month in Federal or State or local health service, at the discretion of the government, for each month of educational training financed by the Government. In lieu of official duties, a beneficiary might be allowed to practice in an area that was deficient in his or her respective professional talent.

With respect to local health services the Association went on record as favoring a substantial appropriation by Congress specifically for aiding local governmental units, through State health agencies, in strengthening, establishing and maintaining local public health services.

As to infectious diseases the Association recommended the following:

1. "The improvement in laboratory procedures for identifying the enteric organisms. It is therefore recommended that there be formed a national Salmonella typing center by the U. S. Public Health Service.

2. "That approval be given to three new activities of the Communicable Disease center of the U. S. Public Health Service: (a) establishment of a national registry of biological materials, (b) making available rare biologicals to public health and other laboratories, and (c) development of a program for determining the optimum levels of specificity and sensitivity of antigens and diagnostic anti-sera used by public health laboratories.

3. "That approval be given for the establishment by the U. S. Public Health Service of a service for the evaluation of procedures for the laboratory diagnosis of tuberculosis.

4. "That approval be given for the establishment of a national virus and rickettsial identification center by the U. S. Public Health Service, and it is recommended that throughout the country there be established regional diagnostic facilities for identifying viruses, using laboratories of state health departments and other agencies where practicable.

5. "That the laboratory of each state and territorial health department attempt to evaluate the work of diagnostic laboratories throughout its jurisdiction for the purpose of improving the quality of services.

6. Tuberculosis Control Program — "(a) The establishment of a Program Planning Committee

for the purpose of coordinating the activities of all agencies in the field of tuberculosis control and it is recommended that the aforementioned committee (a member of the U. S. Public Health Service, the American Public Health Association, the American Medical Association, and the National Tuberculosis Association) include a representative of the State and Territorial Health Officers.

"(b) Endorsement of the principle of community-wide chest X-ray service and recommends that the U. S. Public Health Service continue to conduct and extend its activities in that field, especially in the program of assistance to large cities.

"(c) Endorsement of the nation-wide program sponsored jointly by the National Advertising Council, the National Tuberculosis Association, and the U. S. Public Health Service.

7. "That the U. S. Public Health Service undertake through state health departments the inauguration of a program for the detection of early cases of leprosy in the four states where the disease is most prevalent. It is further recommended that consideration be given to the establishment in these states of special treatment centers for persons who are found to be in the early stages of the disease and that unnecessary restrictions imposed upon patients with leprosy be relaxed insofar as is practicable.

8. "That a Rabies Control Program be developed to include: (a) control of stray dogs, (b) immunization of all dogs residing in the area, (c) control of wildlife where they are a known reservoir, and (d) where practicable, the designation of a public health veterinarian to be responsible for the operation of the program.

9. "That the present rigid regulations governing the interstate shipments of birds of the psittacine family be retained."

With respect to maternal and child health the Association's action was as follows:

1. "Endorsed, in principle, school health legislation to establish and develop school health services for the prevention, diagnosis, and treatment of physical and mental defects and conditions of school children, with special reference to the correction of defects and conditions likely to interfere with the normal growth, development and educational progress of children, and to include health instruction. The above recommendation should be qualified by the following statements:

a. It should be borne in mind that school health is but a part of the total public health program.

b. In line with the Association's previously expressed policy, it should be emphasized that in order to carry out effectively any additional specialized services, funds for the provision of basic generalized services will be required.

2. "Endorsed in principle Senate Bill 1714 "to provide for the general welfare by enabling the several states to make more adequate provision for the health of mothers and children and for services to crippled children, and for other purposes," with the following qualifications:

a. That each state shall be permitted to establish its own eligibility requirements, except that there shall be no discrimination because of race, creed or color, and provided that there shall be a broad interpretation of financial eligibility.

b. That each state shall be allowed freedom to determine the range of services in the plan, but that states should be encouraged to extend all available services to the entire state within a reasonable period of time."

CONTINUATION EDUCATION FOR PHYSICIANS (Continued)

suggest devices to maintain the incentive to learn and to study. Opportunities are now available to give such training in several ways, either as training for a specialty, or as short term courses. But without the incentive to learn continously these opportunities mean little.—F. K. H.

Correspondence

THE FOURTH CLINICAL CONFERENCE

The Chicago Medical Society is extending all physicians a most cordial invitation to come to Chicago for the Conference, March 2, 3, 4, 5, 1948.

After looking over the program you will no doubt wish to make your reservation AT ONCE with the Palmer House, Chicago, Illinois.

TUESDAY, MARCH 2

8:30 a.m. "Roentgenologic Aspects of Malacic Diseases of Bone." John D. Camp, Associate Professor of Roentgenology, Mayo Foundation, Rochester, Minnesota.

9:00 a.m. "The Clinical Diagnosis of Infection following Chemotherapy and Antibiotics." Edwin P. Lehman, Professor of Surgery and Gynecology, University of Virginia, Charlottesville, Virginia.

9:30 a.m. "The Present Status of Surgical Intervention In Peptic Ulcer." Waltman Walters, Head of a Section in Surgery, Mayo Clinic and Professor of Surgery, Mayo Foundation, Minnesota University, Rochester, Minnesota.

10:00-11:00 a.m. Intermission for Review of Exhibits.

11:00 a. m. "Clinical Recognition of the Arrhythmias." Tinsley R. Harrison, Dean of Faculty, and Professor of Internal Medicine, Southwestern Medical College, Dallas, Texas.

11:30 a.m. "Ratiocination in the Treatment of Cancer of the Cervix Uteri." A. N. Arneson, Assistant Professor of Clinical Obstetrics and Gynecology, and Therapeutic Radiology, Washington University School of Medicine, St Louis, Missouri.

12:00-1:30 p.m. Luncheon — Round Table Discussion.

1:30 p.m. "The Doctor and the Patient with Asthma." Francis M. Rackemann, Lecturer in Medicine, Harvard Medical School; Physician, Massachusetts General Hospital, Boston, Massachusetts.

2:00 p.m. "Anxiety Syndromes in Clinical Medicine." Franklin G. Ebaugh, Professor of Psychiatry, University of Colorado School of Medicine; Director, Colorado Psychopathic Hospital, Denver, Colorado.

2:30 p.m. "The Diagnostic and Therapeutic Value of Liver Function Tests." Chester M. Jones, Clinical Professor of Medicine, Harvard University; Physician, Massachusetts General Hospital, Boston, Massachusetts.

3:00-4:00 p.m. Intermission for Review of Exhibits.

4:00 p.m. "Treatment of Prostatic Carcinoma." George G. Smith, Lecturer, Genito-Urinary Surgery, Harvard Medical School, Brookline, Massachusetts.

4:30-5:30 p.m. Clinicopathological Conference.

WEDNESDAY, MARCH 3

8:30 a.m. "Clinical Considerations in the Treatment of Bright's Disease." Harold C. Lueth, Dean, University of Nebraska College of Medicine, Omaha, Nebraska.

9:00 a.m. "Safety Factors in Surgery of the Colon" Claude F. Dixon, Head of a Section in Surgery, Mayo Clinic; Associate Professor of Surgery, Mayo Foundation, Rochester, Minnesota.

9:30 a.m. "The Possibilities of Physical Medicine from the Standpoint of the Internist." George M. Piersol, Professor of Medicine, Graduate School of Medicine and Professor of Physical Medicine, School of Medicine, University of Pennsylvania, Philadelphia, Pa.

10:00-11:00 a.m. Intermission for Review of Exhibits.

11:00 a.m. "The Response of the Adrenal Cortex to Disease and Injury." J. S. L. Browne, Director, University Clinic, Royal Victoria Hospital, Montreal, Quebec, Canada.

11:30 a.m. "Differential Diagnosis of Splenomegaly." William B. Castle, Professor of Medicine; Chairman of Department, Harvard Medical School, Boston, Massachusetts.

12:00-1:30 p.m. Luncheon — Round Table Discussion.

1:30 p.m. Diagnosis and Treatment in Male Sterility." Earl T. Engle, Professor of Anatomy, Columbia University, New York, N. Y.

2:00 p.m. "Physiological Changes Resulting from Vagotomy for Peptic Ulcer." R. Arnold Griswold, Professor and Head of Department of Surgery, University of Louisville School of Medicine, Louisville, Kentucky.

2:30 p.m. "Rickettsial Infections in the United States." William S. Middleton, Professor of Medicine; Dean of the Medical School, University of Wisconsin, Madison, Wisconsin.

3:00-4:00 p.m. Intermission for Review of Exhibits.

4:00 p.m. Title to be announced later. Roscoe L. Sensenich, President-Elect of the American Medical Association.

4:30-5:30 p.m. "What's New in Medicine and Surgery."

THURSDAY, MARCH 4

8:30 a.m. "The Diagnosis of Lesions in the Knee Joint." Paul C. Colonna, Professor of Orthopaedic Surgery, University of Pennsylvania Medical School, Philadelphia, Pennsylvania.

9:00 a.m. "Chronic Subinvolution of the Uterus, Its Pathology and Clinical Significance." Otto Henry Schwarz, Professor, Clinical Obstetrics and Gynecology, Washington University School of Medicine, St. Louis, Missouri.

9:30 a.m. Psychoanalytic Perspectives in Medicine." Kenneth E. Appel, Professor Clinical Psychiatry, University of Pennsylvania School of Medicine.

10:00-11:00 a.m. Intermission for Review of Exhibits.

11:00 a.m. "The Surgical Treatment of Mediastinal Tumors." Cameron Haight, Associate Professor of Surgery, University of Michigan Medical School, Ann Arbor, Michigan.

11:30 a.m. "The Physiological Advantages and Disadvantages of Newborn Patients." Clement Andrew Smith, Assistant Professor of Pediatrics. Harvard Medical School, Boston, Massachusetts.

12:00-1:30 p.m. Luncheon — Round Table Discussion.

1:30 p.m. "Primary Respiratory Disease, Pathogenesis and Prevention." John M. Adams, Associate Professor of Pediatrics, University of Minnesota Medical School, Minneapolis, Minnesota.

2:00 p.m. "Factors in the Prognosis of Disease of Coronary Arteries." E. Cowles Andrus, Associate Professor of Medicine, Johns Hopkins University School of Medicine, Baltimore, Maryland.

2:30 p.m. "Treatment of Difficult Nonunions of the Long Bones." J. S. Speed, Professor of Orthopedic Surgery, University of Tennessee, College of Medicine, Memphis, Tennessee.

3:00-4:00 p.m. Intermission for Review of Exhibits.

4:00-5:00 p.m. PANEL ON OBSTETRICS.

Dinner — 7:00 p.m.

Grand Ball Room — Palmer House — Informal. For members of the profession, their ladies and friends. Program to be announced later.

FRIDAY, MARCH 5

8:30 a.m. "Malignancy of the Skin." Carl W. Laymon, Clinical Assistant Professor of Dermatology, University of Minnesota Medical School, Minneapolis, Minnesota.

9:00 a.m. "Functional Uterine Bleeding." Herbert F. Traut, Professor of Obstetrics and Gynecology, University of California Medical School, San Francisco, California.

9:30 a.m. "Rheumatic Fever." William P. Holbrook, Member of the Governing Board, St. Mary's Hospital and Sanatorium, Tucson, Arizona.

10:00-11:00 a.m. Intermission for Review of Exhibits.

11:00 a.m. "Bronchiogenic Carcinoma." Alton Ochsner, William Henderson Professor of Surgery; Head of the Department of Surgery, Tulane University of Louisiana, School of Medicine, New Orleans, Louisiana.

11:30 a.m. "Current Views on the Treatment of Syphilis." Francis W. Lynch, Clinical Professor of Dermatology, University of Minnesota Medical School and Graduate School, St. Paul, Minnesota.

12:00-1:30 p.m. Luncheon — Round Table Discussion.

1:30 p.m. "Management of Patients with Renal Lithiasis." Charles C. Higgins, Urological Service, Cleveland Clinic Foundation Hospital, Cleveland, Ohio.

2:00 p.m. "Treatment of Early Carcinoma of the Larynx." Francis E. LeJeune, Professor and Head of the Department of Otolaryngology, Tulane University of Louisiana School of Medicine, New Orleans, Louisiana.

2:30 p.m. "The Cranio-Cerebral Post-Traumatic Syndrome, A Practical Consideration." William E. Grove, Professor of Otolaryngology, Marquette Medical School, Milwaukee, Wisconsin.

3:00-3:30 p.m. Intermission for Review of Exhibits.

3:30 p.m. "Streptomycin Therapy." William L. Bradford, Associate Professor of Pediatrics, University of Rochester School of Medicine, Rochester, New York.

4:00-5:00 p.m. Clinicopathologic Conference.

REGISTRATION FEE $5.00

The Chicago Medical Society invites YOU, and recommends that you make reservations NOW.

WOMAN'S AUXILIARY TO THE ILLINOIS STATE MEDICAL SOCIETY

In a few more weeks spring will be "busting out all over", and Spring Time is synonymous with Convention Time. We are starting early to talk convention so that by May 10th every doc-

tor's wife in the State of Illinois will know that she is welcome to attend the annual convention of the Woman's Auxiliary to the Illinois State Medical Society, at the Congress Hotel, Chicago, Illinois. The Illinois State Medical Society will be meeting at the Palmer House at the same time, so plan a holiday, make it a gala occasion, come meet old friends and make new ones. Come and learn what the Auxiliary is doing, not only in your own county but in all of the counties throughout the state. Come and exchange ideas, bring your problems and let us try to help you. If you are not a member come any way, all doctors' wives are welcome.

Evelyn Bucy,
Convention Chairman.

CHANGE DATE OF INDUSTRIAL CONFERENCE ON ALCOHOLISM

The first Industrial Conference on Alcoholism, originally scheduled to be held on March 15, will now be held on Tuesday, March 23, it was announced by Dr. Anton J. Carlson, of the University of Chicago, chairman, and James H. Oughton, Jr., of the Keeley Institute, Dwight, Ill., co-chairman.

Sponsored by the Chicago Committee on Alcoholism, the one-day conference will be held in the Terrace Casino of the Morrison hotel, Chicago.

At the same time, it was announced that Dr. John I. Norris of the Eastman Kodak company, Rochester, N. Y., would be the keynote speaker at the conference's luncheon to be held in the Mural room of the Morrison. Norris, a Fellow of the American Association of Industrial Physicians and Surgeons and of the American Medical Association, has been doing considerable work on the subject of alcoholism through the Rochester Committee for Education on Alcoholism. His talk will be highlighted with the latest information available to industry.

The conference has been designed to bring to the attention of industry leaders throughout the country facts pertaining to the problem of alcoholic employees and to discuss ways and means of overcoming the problem.

ILLINOIS SOCIETY OF ANESTHESIOLOGY

Illinois anesthesiologists have formed a new state-wide organization, which will be functioning fully this spring. The first annual meeting will be held shortly after organizing is completed.

If any physicians interested have not yet been contacted, they may obtain more information by writing to Max Sadove, M.D., c/o Illinois Eye and Ear Infirmary, Chicago.

MICHIGAN CLINICAL INSTITUTE

Every doctor of medicine in Michigan and surrounding states and provinces is cordially invited to attend the Second Annual Michigan Postgraduate Clinical Institute convening Wednesday, Thursday, and Friday, March 10 — 12 in Detroit. The Institute features lectures by forty-nine outstanding Michigan clinicians and teachers who will cover in their discussions a complete review of latest medical scientific findings.

The Conference is sponsored by the Michigan State Medical Society, the University of Michigan Medical School, Wayne University College of Medicine, Wayne County Medical Society, the University of Michigan Department of Postgraduate Medicine, and the Michigan Foundation for Medical and Health Education, Inc.

There is no registration fee. Hotel reservations may be obtained by writing E. C. Texter, M.D., Chairman of the Committee on Hotels, 1005 Stroh Building, Detroit.

SUGGESTS SOLUTION FOR NURSING SHORTAGE

Dear Dr. Camp:

Your editorial on The Nursing Shortage which appears in the December number of the Illinois Medical Journal is very timely, but I believe there is a better solution of the problem than the one you suggest, namely the following:

Establish a two-year training course specifically for bed-side nurses in addition to the three-year course now in operation.

Establish the following requirements for such a course:

A. Certified Hospital
B. Requirements for admission —
 1. Two years of high school.
 2. Two years of practical experience in some useful occupation.
 3. Two years of nursing training in bed-side nursing.

The foregoing type of requirement would provide just as good bed-side nurses as the present three-year course does, and would attract many fine young women who do not want to spend three years in hospital training.

Many of the best family nurses that I have known had the type of training suggested herewith.

One of the reasons why there is such a shortage of hospital beds is that it is almost impossible to get adequate home nursing service and patients are forced to go to hospitals for minor ailments which could be taken care of just as well in their homes of there were nurses available for such service and at much less expense.

Sincerely
Edward H. Ochsner, M.D.

Editor's Note: Dr. Ochsner is a past president of our society.

RESERVE COMMISSIONS AVAILABLE

The department of the Army recently announced the opening of a program for procurement of male Doctors of Medicine for its Reserve Component.

Appointments as First Lieutenants Medical Reserve are now available for all qualified applicants who are graduates of recognized schools of Medicine. Applicants must be between the ages of 21 and 32 at the time of appointment. Completion of internship is not necessary.

Further information, application blanks, etc., are available at the office of the Illinois State Senior Instructor for Organized Reserves, Room 910, 1660 East Hyde Park Boulevard, Chicago, Illinois, or the Chicago Sub-Office, Organized Reserves, 10th Floor, 226 West Jackson Boulevard, or any one of the following Sub-Offices:

Moline Sub-Office
Rms 207-208, Post Office Bldg
Moline, Illinois
Tel: 7482

Marion Sub-Office
501½ Public Square
Marion, Illinois
Tel: 12 .

East St. Louis Sub-Office
421 Missouri Avenue
East St. Louis, Illinois
Tel: East 7524

Springfield Sub-Office
Rm 302, United Mine Workers Bldg.
400-410 East Monroe Street
Springfield, Illinois
Tel: 5451

Decatur Sub-Office
Rm 301, Macon County Bldg
Decatur, Illinois
Tel: 31821

Rockford Sub-Office
Suite 400, Blackhawk Bldg
526 W. State Street
Rockford, Illinois
Tel: 49033

Peoria Sub-Office
Rm 312, Commercial Bank Bldg
Peoria, Illinois
Tel: 3-5947

Urbana Sub-Office
Central School Building
315 N. Randolph Street
Champaign, Illinois
Tel: 5070

POSTGRADUATE COURSE IN DISEASES OF THE CHEST

The American College of Chest Physicians, Pennsylvania Chapter, and the Laennec Society of Philadelphia are sponsoring a postgraduate course in diseases of the chest to be held during the week of March 15-20, 1948, at the Warick Hotel, Philadelphia, Pennsylvania.

The emphasis in this course will be placed on the newer developments in all aspects of diagnosis and treatment of diseases of the chest.

The course will be limited to 30 physicians. Tuition fee is $50.00 for members, and $90.00 for non-members.

Further information may be secured at the office of the American College of Chest Physicians, 500 North Dearborn Street, Chicago 10, Illinois.

INVITATION TO ALL SURGEONS TO ATTEND INTERNATIONAL SURGICAL ASSEMBLY

The Sixth International Assembly of the International College of Surgeons will be held in Rome, Italy, at the invitation of the Italian Government, during the week of May 16-23, 1948, under the presidency of Professors Raffaele Bastianelli and Raffaele Paolucci of Rome, and Mario Dogliotti of Turin. The Secretary of the Assembly is Prof. Giuseppe Bendandi of Rome. Attendance is not limited to the membership of the College: all surgeons in good standing in their medical organizations are invited.

Detailed information may be obtained from Dr. Max Thorek, General Secretary, 850 Irving Park Road, Chicago 13. For travel information, address the All Nations Travel Bureau, 38 S. Dearborn Street, Chicago, the official travel representatives for this Assembly. Those desiring to present scientific papers address Dr. Karl Meyer, Cook County Hospital, Chicago.

APPOINTMENT OF COMMISSIONED OFFICERS IN THE MEDICAL CORPS OF THE REGULAR NAVY

The statutory authority contained in Public Law 365 — 80th Congress Title II (Army-Navy-Public Health Service Medical Officer Procurement Act of 1947) makes it possible now for civilian doctors to become commissioned officers in the regular Navy, provided they meet the professional and physical qualifications. This law is unique in that it does away with, for the first time, the age limitation of thirty-two years of age and permits doctors in civilian practice to enter the Navy and be commissioned with the rank up to and including Captain. The law considers all strata of the medical profession, internes, residents, reserves, former medical officers who have resigned, and present practicing physicians.

In order to make application a doctor must be a citizen of the United States, a graduate from a Class "A" medical school and have served at least one year's internship in an approved hospital. Candidates will then be judged on a number of qualifications such as being a member of a specialty board, their teaching connections, the number of years of professional or scientific practice, hospital or laboratory connections, a statement of military service, etc.

The allocation of rank to successful canidates will depend upon their academic age, professional standing, and experience in the medical field. Successful candidates will then be integrated in line with medical officers of the regular Navy and assigned running mates accordingly. This means that they will be eligible for promotion along with their fellow officers of equal rank.

This law offers a fine opportunity for civilian doctors to make a career in the regular Navy and to enjoy its professional advantages as well as its retirement benefits. Doctors interested in such a career should write to the Bureau of Naval Personnel, via the Bureau of Medicine and Surgery, Navy Department, Washington, D. C.



SURGERY, X-RAYS AID IN CANCER TREATMENT OF LUNG AND LARYNX

Doctors Point Out That Cancer Problem Is Not One Of Treatment But Of Early Recognition

Two physicians discuss the benefits of surgery and x-ray in the treatment of cancer of the lung and of the larynx, the voice organ, in the May 10 issue of *The Journal of the American Medical Association.*

John C. Jones, M.D., Assistant Professor of Surgery, College of Medical Evangelists, Los Angeles, states that postmortem examinations show that cancer of fthe lung contributes 10 per cent of all adult male cancers and is second only to cancer of the stomach; therefore it is necessary to diagnose the disease earlier if a successful surgical cure is to be secured.

Between 80 to 90 per cent of patients complain show that cancer of the lung contributes 10 per of cough as the earliest symptom. Dr Jones lists pain as the second most common symptom, then spitting of blood, loss of weight, wheezing, labored breathing, clubbing of the fingers and toes and hoarseness.

X-ray, states the author, "is the greatest single diagnostic aid at our disposal. . . . Bronchoscopy is the next most important diagnostic aid and is the easiest and most accurate method of early diagnosis."

Treatment requires removal of one entire lung. Dr. Jones says x-ray treatment at best offers only relief for those patients who are inoperable.

In the past four years, Dr. Jones points out, 209 cases of cancer of the lung have been seen and diagnosed. Of these patients, 52 underwent surgery, being in the operable stage. Two patients died in the hospital and 11 died later. Thirty-nine patients remain alive, and a number of these will probably die of recurrence or spread of the disease.

Maurice Lenz, M.D., Professor of Clinical Radiology, Columbia University College of Physicians and Surgeons, New York, states that of 110 patients who received x-ray treatment for cancer of the larynx at the Presbyterian Hospital between 1931 and 1941, 30 were free from clinical evidence of cancer between five and 14 years. Of these, 23 patients are still alive.

Dr. Lenz points out that x-ray treatment is the method of choice for early cancer of the vocal cords but when the cancer spreads then laryngectomy is necessary. This operation requires the removal of the larynx.

ELECTRIC SHOCK USED TO REVIVE BOY

How electric shock brought about complete recovery in a patient whose heart action resembled that of a dying man is described in the December 13 issue of *The Journal of the American Medical Association.* The article is by C. S. Beck, M.D., W. H. Pritchard, M.D., and H. S. Feil, M.D., Cleveland, from the Departments of Surgery and Medicine of Western Reserve University School of Medicine and from Lakeside Hospital.

The patient, a 14 year old boy, was undergoing a chest operation. During the closure of the incision his pulse suddenly stopped and blood pressure sounds could not be heard. The boy apparently was dead. Immediately the incision was reopened and manual massage of the heart begun. At the end of 35 minutes of massage and mechanical respiration some heart action could be detected, but the extremely irregular rhythm showed that the individual fibers of the muscle of the ventricles were acting independently of the rest of the heart. This is the condition found just before death in 50 per cent of all patients.

A normal rhythm was restored by two series of electric shocks, applied directly to the exposed heart, while manual massage maintained an adequate circulation at all times. The boy made a complete recovery without damage to his heart or nervous system.

Original Articles

LANCASTER'S TECHNIQUE OF CATARACT EXTRACTION

Author's Recent Modifications With Report of 125 Consecutive Cases

KENNETH L. ROPER, M.D.
CHICAGO

Technique in cataract surgery has been modified gradually throughout the years, but radically so during the past fifteen to twenty years. This is due largely to greater attention being given to eliminate the complications of cataract surgery. Even if a certain complication occurs but once in a hundred times, this is too often if some improvement in technique can prevent it.

Complications in Cataract Surgery:

1. Loss of vitreous
2. Expulsive hemorrhage
3. Purulent infection
4. Delayed restoration of anterior chamber
 Incomplete closure of the wound
5. Hyphema
6. Prolapse of the iris
7. Postoperative iridocyclitis
8. Retinal detachment
9. Secondary glaucoma
10. High astigmatism

Loss of vitreous is the most important complication in cataract surgery. In cases of fluid vitreous and hypermature cataract with a defective zonule, it is sometimes unavoidable. There are a number of essential precautions which one can take to prevent the loss of vitreous. Most important is perfect anesthesia and akinesia, so that squeezing on the part of the patient is absolutely eliminated. The wound must be adequate so that no undue pressure is used in removing the lens. The lens must slip out easily or vitreous is almost sure to follow. These precautions are taken into account in the Lancaster technique.

Expulsive hemorrhage, fortunately, is a rare complication but a dreaded one since it means loss of the eye. This type of hemorrhage occurs some hours after operation, when the wound reopens. The sudden reduction of tension places a strain on vessels previously traumatized by the operation, and hemorrhage occurs. There are preventive measures which are of great importance; namely, good corneoscleral sutures and a good conjunctival flap which will keep the wound from reopening. The Lancaster technique meets these requirements.

Purulent infection. Dunnington, et. al[1] reported studies in a series of 2508 operations to determine the value of preoperative cultures in the prognosis of postoperative infections and the influence of chemotherapy. They found the predominating preoperative organism to be Staph. albus, and next in order, pathogenic Staph. aureus. Other organisms occurred less frequently. Postoperative infections were found to be due in the great majority of cases to pathogenic Staph. aureus. In 663 cases in which either penicillin or sulfathiazole ointment was used preoperatively, no infection occurred.

It is my practice to use sulfathiazole ointment for three days before operation.

Delayed restoration of anterior chamber; incomplete closure of wound. Early restoration of the anterior chamber means an increase of antibodies in the secondary aqueous. In fact, the

Presented before the Section on Eye, Ear, Nose and Throat; 106th Annual Meeting of the Illinois State Medical Society, Chicago, May 14-15, 1946.

From the Department of Ophthalmology, Northwestern University Medical School, Chicago, Ill.

mechanism of immunity in the eye itself is given a stimulus.

Gaping wounds are too frequently the cause of serious postoperative complications. The method of suturing which I am describing eliminates almost entirely the possibility of delayed restoration of the anterior chamber or a gaping wound.

Hyphema. Vail[2] has pointed out that hyphema is the result of wound reopening and the rupture of newly formed corneo-episcleral blood vessels at the section. In some instances he felt it is due to rupture or diapedesis from diseased iris vessels, as a result of inflammation. He stated that the cause is entirely local; that constitutional factors, including diabetes, play no part; and that the type of operation, whether intracapsular or extracapsular, has no influence on the incidence of hyphema. Preventive treatment is important, and Vail advocates the use of multiple corneoscleral sutures. I employ three corneoscleral sutures.

Prolapse of the iris occurs as hemorrhage occurs when the chamber reforms and suddenly reopens. Here again, a well sutured wound with an iridectomy (or iridotomy) is our best preventive measure.

Postoperative iridocyclitis. It is likely that much so-called postoperative iridocyclitis is due to organisms introduced into the wound at the time of operation. The value of preoperative treatment of the conjunctiva with penicillin or sulfathiazole ointment cannot be denied. Early restoration of the anterior chamber also aids in preventing such infection.

Retinal detachment. Loss of vitreous is the greatest predisposing factor to simple detachment of the retina. If one uses every precaution to prevent the loss of vitreous one is less apt to have this late complication occur.

Secondary glaucoma. Treacher Collins[3] pointed out in 1890 that any operation which is most likely to produce rapid closure of the wound will be least likely to be followed by this complication. Treacher Collins[3, 4] also claimed that the adhesions of the lens capsule to the corneal cicatrix after an extracapsular operation predisposes the eye strongly to subsequent glaucoma. He felt that slowness in the reformation of the anterior chamber favors adhesions of the capsule and iris to the wound.

Kronfeld and Haas[5,6] have pointed out how glaucoma is due to peripheral anterior synechiae following delayed restoration of the anterior chamber.

The technique which I employ insures a rapid closure of the wound and early restoration of the anterior chamber.

There is a distinct advantage of the basal buttonhole iridectomy over the regular iridectomy in the protection against tags of capsule adhering to, or becoming entangled in, the incision when an extracapsular operation is done. The basal iridectomy also avoids most of the iris complications. Furthermore, there is less tendency for the iris to be drawn up because of displacement of the vitreous upward.

High astigmatism. With the Lancaster technique the incidence of high astigmatism is markedly reduced. While this is seldom mentioned as a complication of cataract surgery I feel that it should be.

In the series of cases which I am presenting the average astigmatism is 0.85 diopters.

Hughes and Owens[7] of the Wilmer Institute presented a paper at the Academy meeting in Chicago in 1944, which was a survey of all cases of uncomplicated senile cataracts operated by both the resident and attending staffs of the Institute over an eighteen year period — 1925-1943 — a total of 2086 extractions. In their report they pointed out the factors which seemed to obviate complications and produce the best end results, all of which are embodied in the Lancaster technique. They found that loss of vitreous occurred least often in round pupil, intracapsular extraction; that incomplete closure of the corneal wound and prolapse of the iris were greatly reduced by the use of one and especially two corneoscleral sutures; that anterior chamber hemorrhage occurred less frequently after round pupil intracapsular extraction with two corneoscleral sutures; and that secondary glaucoma became less frequent following intracapsular extraction with two corneoscleral sutures.

Use of a third suture then might fairly be expected to give even better results

ANESTHESIA

Poor results in cataract surgery are frequently attributed to poor cooperation on the part of the patient. I am not convinced of this. I feel that poor cooperation can be prevented. In other words, the surgeon's procedure should be such as to control his patient's reactions. One must be certain that the patient does not feel, that he

does not want to move and could not move if he tried.

Preliminary or "Basal" anesthesia. I particularly want to stress the wisdom of careful, preliminary or basal anesthesia.

Nervous or apprehensive patients should be given some sedation upon entering the hospital, and on the night before operation to insure a good night's rest. A cleansing enema is given the night before, or early the following morning if the operation is scheduled for the afternoon. A light breakfast and liquids at noon are given. Two hours before the operation, I give 20 to 30 grains of chloral hydrate by rectum. One hour before the operation I give 3 grains of sodium amytal by mouth. To help produce the sedative effect desired, the patient should be kept quiet with no visitors or activity in the room. One hour before the operation I instill into the eye to be operated, two drops of 4% homatropine in 3% paredrine solution. This is repeated one-half hour later.

With this preliminary medication, the activities of the higher reflex centers are reduced and the patient will not want to move even if he could.

I prefer the use of more than one drug to one drug in a very large dose. Lundy[8] points out that a suitable combination of drugs is advantageous in that one drug neutralizes the untoward effect of another; also, that most local anesthetic agents which we employ are spasmotic drugs, so that preliminary medication with a barbiturate, which is an antispasmotic drug, will tend to control or minimize any convulsion which may occur from the use of a local or an infiltrating anesthetic substance.

Local or Topical anesthesia. For local anesthesia, 4% cocaine is used. One or two drops are instilled four or five times, at three minute intervals. A drop of 1:1000 adrenalin is instilled between two or three of the instillations of cocaine. The eye should be kept closed between instillations.

Akinesia of the 7th nerve. I employ the simple method described by O' Brien[9, 10] of obtaining akinesia of the 7th nerve.

Forced closure of the eyelids or "squeezing" frequently results in loss of vitreous. It can be prevented by injections which temporarily paralyze the branches of the facial nerve which supply the muscles of lid closure. In gentle closure of the lids, only the orbicularis oculi is acting; while in forced closure of the lids other muscles come into play; namely, the frontalis, the corrugator supercilii, the quadratus labii superioris and the pyramidalis nasi. This entire group of muscles, which act in forced lid closure, is supplied by the temporofacial divison of the 7th nerve.

One places his index finger in front of, and slightly below the external auditory meatus. The patient is then asked to open his mouth, and as he does so, the condyle of the mandible is felt to slip forward. One feels a depression under his fingertips. When the mouth is closed the condyle slips back and it is directly over this point and down on to it that the solution should be injected. One strikes the outer surface of the condyle with the needle. In edentulous patients the condyle slips further backward when the mouth is closed. This should be taken into account, otherwise the injection will be made too far forward.

The injection for akinesis of the temporofacial division of the facial nerve should be made over the anterior half of the condyloid process of the mandible. Injections over the posterior half of the condyloid process fail to produce akinesis.

Paralysis becomes evident within from one to two minutes and a full effect is present about five minutes later. The patient is unable to close the eyelids, and the palpebral fissure is widely opened.

Most surgeons use the Van Lint procedure, making injections at different points near the bony orbital rim. Generally, multiple injections are made with long needles which traverse the tissue for some distance. Bulging of the soft parts surrounding the lids is produced, which at times might conceivably give rise to slight pressure on the globe. I feel that the more remote the site of the injection from the field of operation, the less danger of this complication. In the hands of those who do infrequent cataract operations, I believe it is difficult to secure good akinesia by these methods. The O'Brien method of akinesia is preferable to injection of the eyelids because of its simplicity of execution and excellence of results. There is no swelling of the tissues in the region of the eye, and one ac-

tually observes the lid paralysis before starting the operation.

Wright[11] reported four cases which retained the paresis, or paralysis, over a prolonged period thus introducing the complication of lagophthalmos. In these cases it was necessary to do a partial tarsorraphy to protect the cornea. The most protracted case required three months to recover complete function. In none of the cases did the eye suffer, the final result of operation being just as good as if nothing untoward had happened.

O'Brien[12] reported that no patient showed evidence of a prolonged paralysis, and that he had seen no ill effects from the injection. Nor have I ever seen a patient who showed evidence of a prolonged paralysis.

I would like to point out that Wright made his injections into the tissues surrounding the facial nerve trunk at its point of emergence from the stylomastoid foramen — whereas from an anatomical standpoint, the O'Brien method of injection is much easier and safer to do.

Retrobulbar injection. A retrobulbar injection of 1cc. of 2% novacaine with 1 drop of 1:1000 adrenalin added, is made into the region of the muscle cone. One does not aim to pass the needle deep where he might strike a large vessel but to get the injection behind the globe where the posterior ciliary nerves are. In this way, one secures additional anesthesia and some degree of akinesia of the extraocular muscles, which by their spontaneous contraction, are a too frequent cause of vitreous loss. A good retrobulbar injection is attended with marked hypotony which is probably important in doing the intracapsular operation.

Subconjunctival injection. For this injection I employ a solution of novocain-pontocaine-cobefrin which is used so extensively by the dental profession for giving prolonged local anesthesia.

I first saw Dr. Daniel C. Kirby use it. With the usual concentrations of novocain we get the required depth of anesthesia but we often fail to obtain the necessary duration of anesthesia. This new anesthetic seems to meet these requirements. From the very beginning of my use of this injection, I was impressed with the fact that all the patients were more comfortable locally during the first three to six hours after operation. I feel this is worthy of mention. I have not as yet employed the solution for retrobulbar injection but intend to do so.

INSTRUMENTS

Success in cataract surgery depends on the attention which the surgeon gives to a multitude of details. Speed in cataract surgery is not always possible, especially when nurses in attendance are unacquainted with ocular surgery. Photographs of the instrument tray, the sterile table set-up and the anesthesia tray, not only for cataract but for all types of ophthalmic operations, can be of great help to one doing ophthalmic surgery in a general hospital where it constitutes a relatively small part of the work. Operating room nurses find them most helpful and the surgeon runs no chance of forgetting to lay out any instrument which might be needed.

Before proceeding with a description of the operation itself, I would like to speak of what one's conduct should be in the operating room. Comparative quiet should be the rule. A patient may be calm and placid from his medication but he should not be disturbed by irrelevant conversation, particularly remarks about the operation or comments on defective materials which the surgeon may think the patient is too sleepy to hear. Patients are keenly alert to comments made by the surgeon or his assistants. Patients should not be asked to look up or to look down or to do this or do that. The surgeon should be in full command and control of the patient as well as the eye on which he is about to operate.

I first described Lancaster's technique in 1943[13]. I have continued to use this technique but from time to time have made various modifications in it — the most important being the manner of preparing the conjunctival flap and the method of placing the corneoscleral sutures.

SUCCESSIVE STEPS OF THE OPERATION

Just before the local instillations of cocaine have been completed the O'Brien block of the 7th nerve is done.

Canthotomy should always be done when there is need for it. The soft tissues at the outer canthus can be injected with novocain at the time of the O'Brien block.

As soon as evidence of paralysis of the orbicularis becomes evident, the patient is draped and the instrument tray is placed above the chest of the patient, in full view, where it is accessible to both myself and the assistant.

Retrobulbar injection is the next step.



Figure 1. (Roper) Placement of bridle suture superior rectus.

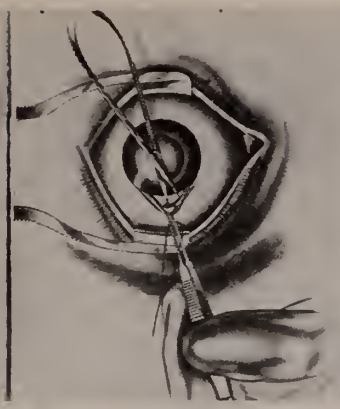


Figure 2. (Roper) Dissection of conjunctival flap at limbus upper half of eye.

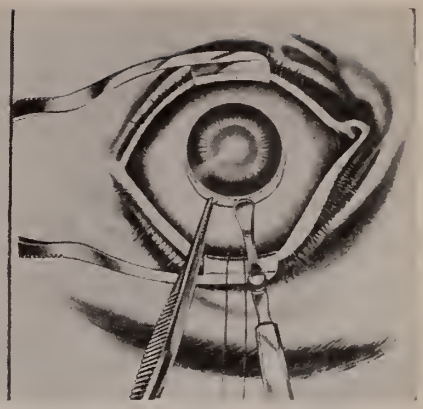


Figure 3. (Roper) Preliminary groove with Lancaster guarded scleral knife.

Subconjunctival injection is now made above and below and well back from the cornea.

Bridle suture (Figure 1) Good fixation is most important in cataract surgery. The bridle suture serves as a point of fixation. In fact, I employ it while inserting my corneoscleral sutures. I never ask a patient to look down. Instead, I take two Elschnig scleral forceps, pull the eye down with one and then apply the second at right angles to the globe over the muscle. I am careful not to open this forceps too wide and to take only a small bite of the muscle while pressing firmly against the sclera.

Conjunctival flap (Figure 2) The conjunctiva is excised at the limbus around the upper half of the eye, and freed pretty well back. At the completion of the operation the entire wound is covered by conjunctiva, which affords added protection and better surgical closure.

Preliminary groove (Figure 3) An incision or groove is made along the line of the contemplated section about 0.5 to 1 mm. behind the limbus and about one-half of the thickness toward the anterior chamber. Dr. Lancaster designed a special knife for this purpose which he calls a guarded scleral knife. The guarded blade is set, and the incision is made obliquely and at about the plane of a keratome incision. Fixation is best obtained for this procedure with a sharply pointed Elschnig scleral forceps. In this way the incision part way through the sclera is made quickly, easily and safely. McLean[14]

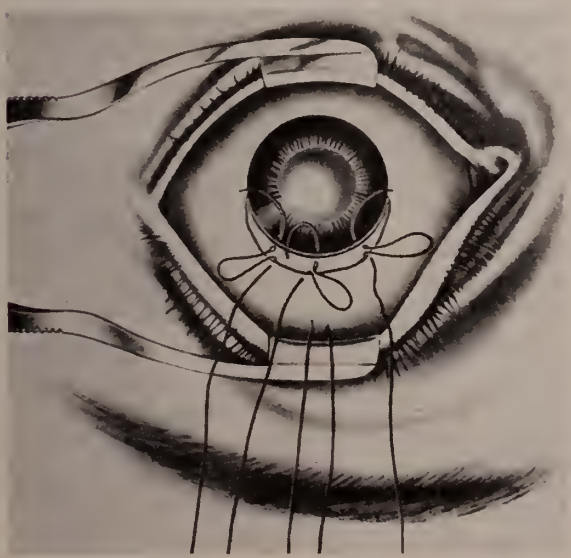


Figure 4. (Roper) Technique of placing corneoscleral sutures.

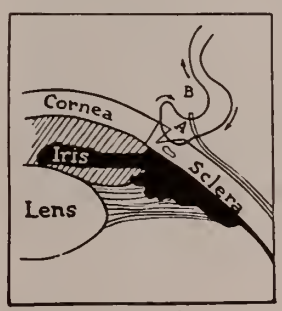


Figure 5

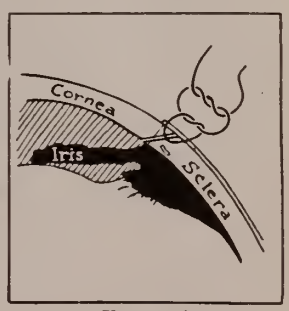


Figure 6

Figure 5. (Roper) Diagram showing A, preliminary groove by Lancaster guarded scleral knife; B, course of needle and thread passing through first the edge of the conjunctival flap above and then through both the scleral and corneal lips of the groove. At the completion of the operation each suture is passed back through the edge of the conjunctival flap above. It should be noted that the conjunctival flap and therefore the course of the sutures differ from that described by McLean[14].

Figure 6. (Roper) Showing closure obtainable after extraction of the lens; lips of the wound back in their preoperative position and covered by conjunctiva.

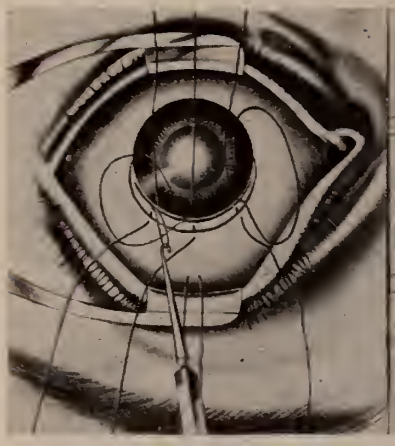


Figure 7. (Roper) Sutures drawn out of groove and loops laid carefully aside.



Figure 8. (Roper) Keratome incision made between any two sutures.

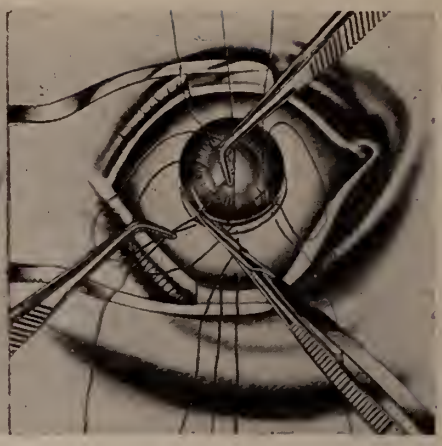


Figure 9. (Roper) Completing section with scissors, opposing loops of sutures being held apart.

uses a Lundsgaard knife in preparing his groove, but with the Lancaster guarded scleral knife the unwelcome complication of inadvertently penetrating the anterior chamber is eliminated. One does not necessarily make his incision or groove continuous along the entire line of the contemplated section but can make short grooves opposite the 10:30, 1:30 and 12:00 o'clock positions on the corneal dial.

Corneoscleral sutures (Figures 4, 5, 6) I employ three corneoscleral sutures. These are placed somewhat similar to the technique first described by McLean[14]. The sutures are placed in solid corneal and scleral tissue and not in loose yielding conjunctiva. They are placed before the section is made, which eliminates the hazards of manipulating the opened eye. The sutures are so placed that they pass through and not over the lips of the wound. When sutures so placed are tied, the tissues are brought back to their exact preoperative position and the entire wound is covered by a conjunctival flap, which affords added protection and better surgical closure.

One of the main objections to placing sutures after the eye is opened in any position on the corneal dial other than 12:00 o'clock, is the tendency to run such sutures vertically instead of radially, which leads to malposition and buckling of the cornea. Corneoscleral sutures of any kind that are not exactly appositional not only do not insure exact closure of the wound, but prevent it and favor prolapse.

Size 6-0, product C243 or P301, Davis & Geck black silk sutures are used. The sutures are first passed through the edge of the conjunctival flap above. The bridle suture is then grasped and the needle passed through both the scleral and corneal lips of the groove, emerging in corneal tissue about 1 to 1.5 mm. from the line of incision.

Care should be taken to place the three sutures equidistant from each other at 10:30, 12:00 and 1:30 o'clock on the corneal dial. The suture in the 12:00 o'clock position can be most accurately placed for obvious reasons, and can be inserted first.

A sharp Tyrrell hook is used to pull the sutures out of the groove (Figure 7). The loops are then properly disposed of in preparation for making the section.

Keratome incision (Figure 8) The anterior chamber is entered between any two of the sutures with an angular keratome. I prefer either a small or medium keratome. Fixation is obtained below with a sharp-toothed Elschnig scleral forceps.

Enlarging section (Figure 9) The section is completed with corneal scissors, care being taken not to cut the sutures. When the loops are held apart, one by the assistant and the other by the operator, it is comparatively easy to cut between them. The groove already prepared is made to gape (being spread) by slight traction on the opposing loops of the suture. Nugent's utility forceps are particularly suited to handling and tying the sutures. I also use a binocular loupe

in preparing the preliminary groove and placing the sutures.

As for the scissors used in enlarging the section, I employ heavy Stevens scissors (Westcott model). I feel that it is important to have strong scissors for cutting through the sclera, especially when it is desired to cut it on the same plane as that followed by a keratome incision. If the scissors are not heavy enough they will buckle, and, of course, no finger pressure can be made upon them to keep the jaws from spreading. I have tried several different designs of scissors for enlarging the corneal section. Berens had some sclerotomy scissors made for him and he was kind enough to send them to me to try. They were right and left scissors with the conventional handles but with the blades making a more obtuse angle with the shafts. Berens himself had discarded them and he wrote me that he was now using heavy Stevens scissors for enlarging the corneal section.

The incision must always be adequate if one is to avoid undue pressure in removing the lens. For the intracapsular extraction the incision should include half the circumference of the cornea. In the extracapsular extraction it is almost equally important to have a large enough capsulotomy. The lens must slip out easily, or vitreous is almost sure to follow. The expression of the lens must be steady and slow. It should not come out with a rush.

The iridectomy. I prefer a basal buttonhole iridectomy. If for any reason I feel that the pupil is not large enough to permit the passage of the lens, or that it might dilate poorly during the extraction, I perform a narrow but complete iridectomy. Dr. Lancaster performs his iridectomy after the extraction of the lens, claiming that there is always the danger that the lens might catch in the buttonhole instead of taking the proper route through the pupil. I have always felt more secure in performing the iridectomy before making my extraction, feeling that there was less chance of injury to the vitreous. I have also learned, in performing my iridectomy, to reach up under the scleral shelf in grasping the iris, which thus gives me a basal buttonhole iridectomy and not a more central one. The 12:00 o'clock suture can be used as a traction suture for elevation of the corneal flap, thus giving a direct view of the iris.

The loops of all three sutures can be shortened at this time, but one must be certain that sufficient slack remains to allow ample gaping of the wound for the extraction. The ends of the sutures should be laid out carefully so that each one can be easily identified before proceeding to the extraction.

The extraction. Extraction in capsule is the operation of choice for the great majority of cases. It is largely the condition of the zonule which will decide for or against extraction in capsule. The assistant lifts the corneal flap and the closed capsule forceps are introduced into the anterior chamber and are passed down to the lowest point possible, but they should avoid any portion of the iris when they are opened. The forceps are now opened and pressed gently against the lens to grasp the capsule. At the same time, pressure is applied at the limbus below with the tip of a squint hook. This supports the lens as the forceps are pressed against it to obtain a grip of the capsule. In this way there are fewer failures to secure a hold of the lens and there is no danger of dislocating the lens by pressure with the forceps before they have grasped the capsule. This trick is helpful in grasping plump lenses if the pressure is so used as not to make the capsule more tense; also in soft eyes when the lens gives when one tries to grasp it.

Pressure is now applied just inside the clear periphery of the cornea between 4:00 and 8:00 o'clock, with a slight stripping movement designed to slide down over the convexity of the lower part of the lens, thus breaking the zonular fibers from their attachment at the equator. One must definitely indent the cornea, being careful to stay within the limits of safety. When the zonule has ruptured, the body of the lens will be seen to rise. Care must be exercised not to apply pressure over the white portion of the sclera, traumatizing the ciliary body and disturbing the vitreous body. Scarcely no traction is made on the inside until the zonule is broken below and the iris is seen to be raised by the lens as it begins to tumble.

Success from this point on lies in the skill with which the counter pressure on the outside is coordinated with the very slight but simultaneous traction on the inside. The assistant is instructed beforehand to be ready to use the

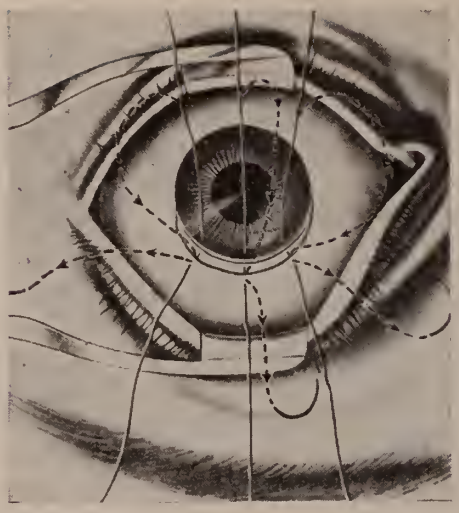


Figure 10. (Roper) Scleral ends of sutures pulled taking up slack of loops after which needles are passed back through edge of conjunctival flap above.

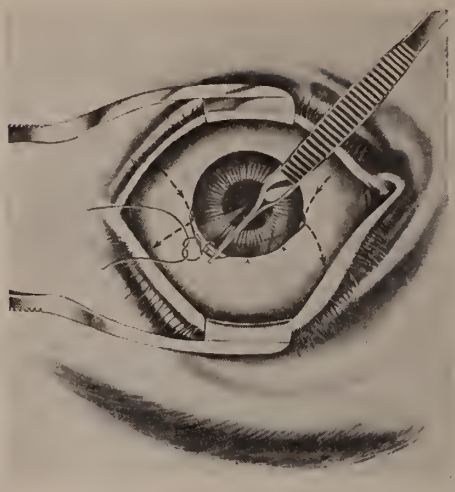


Figure 11. (Roper) Tying the sutures—first a single knot and then reinforced with a second and third knot. Two additional sutures placed in the conjunctiva at 3 and 9 o'clock positions to insure complete covering of the wound.

heel of a small Stevens muscle hook to ease the edge of the iris above over the lens should I so signify.

Completing the operation. The scleral ends of all three sutures are now pulled, taking up the slack of the loops. The needles on the corneal ends of each suture are now passed back through the edge of the conjunctival flap above, as indicated (Figure 10).

Tying the sutures (Figure 11) Each suture is drawn taut and a single knot is first placed in them. As each suture is pulled down into position to be tied, the assistant grasps the conjunctiva close by and holds it over the coapting edges of the wound. When conjunctiva is included in a suture I find that a single knot will not slip. When this is tied tightly I then reinforce it with a second and third knot. I then place two sutures in the conjunctiva at 3:00 and 9:00 o'clock, which covers the remaining portions of the wound.

If irrigation or any extensive toilet of the wound is necessary the slack in all the sutures can be taken up first, making these maneuvers much safer. I find that a little massage over the cornea with the back of a Daviel's lens scoop aids the tissues, particularly the iris, in returning to their normal relations.

Before the eye is closed I instill 2 drops of 1% eserine solution, followed by sulfathiazole ointment.

Dressing. The upper lid is an ideal splint to support the wound especially with a well fitting dressing. I use the bilateral Barraquer dressing. This consists of two or three layers of cotton laid over the lids and moistened down with sterile saline solution. When thus applied this dressing approximates closely the curves and depressions of the lids. Over this is then placed the regular eye dressing made of cotton and gauze. When such a dressing dries, the lids are very satisfactorily immobilized. A protective mask is then placed over the eyes.

Postoperative care. While postoperative pain in cataract surgery is very slight, consideration should be given to the patient's anxiety and apprehension. A restless patient is more apt to do harm to his eye than a comfortable one. I allow my patients to have the head of their bed elevated as much as they desire, which gives great relief to their backs. They are given a pillow for their head and for under their knees when necessary. No sand bags are ever employed.

Ten grains of aspirin, or some aspirin compound tablet, is generally given as soon as the patient is returned to his room. This is repeated when necessary during the first twenty-four hours. One grain of codeine can be given, hypodermically, if indicated. Nembutal combined with aspirin is given at bedtime.

The patient is permitted to turn to the unoperated side after eight to twelve hours. The first dressing is done after forty-eight hours,

at which time a small amount of atropine ointment is usually instilled, and the patient is given one eye. The eye is dressed daily thereafter. In most cases the patient is out of bed by the fourth day; and discharged on the ninth or tenth postoperative day.

Removal of sutures. Some of the arguments against this technique are that the method of suturing tends to complicate the operation and that the sutures are tied so tightly that their removal is often rendered difficult in uncooperative patients. I remove the sutures at the time of the patient's first postoperative visit to the office — usually ten to fourteen days after leaving the hospital. The sutures are always loosened and comparatively easy to remove. Often one or two are missing.

In removing sutures one must make certain of sufficient anesthesia. I first instill a drop or two of ½% pontocaine, after which I instill 2 drops of 4% cocaine with a drop or two of 1:1000 adrenalin over the upper half of the eye, making sure that the drops come into contact with the sutures themselves. The patient is then asked to open both eyes and look downward while the upper lid is held up gently by the thumb of the left hand or a lid retractor if necessary by an assistant. A good focusing flashlight, binocular loupe, sharp pointed iris scissors and Nugent utility forceps are other necessities.

REPORT OF CASES

This report covers 125 consecutive cataract extractions performed during 1943, 1944 and early 1945. The technique herein described was employed in all cases.

Forty-seven patients had one eye operated and thirty-nine had both eyes operated. I feel that the technique is such a safe procedure that in cases of bilateral cataract the second eye can be operated upon 5 to 7 days later, thus permitting a patient to convalesce from two operations during one hospitalization period.

Intracapsular extractions were attempted in all, and were considered unsuccessful if the capsule ruptured either in the eye or when emerging through the wound. Intracapsular extractions were obtained in 92 cases or 74%; and extracapsular in 33 cases or 26%.

Summarized below is the incidence of the postoperative complications referred to at the beginning of this paper:

Loss of vitreous. One loss; one presentation without loss.

Expulsive hemmorrhage. None.

Purulent infection. None.

Delayed restoration of anterior chamber. None.

Incomplete closure of wound. One case. Leaking wound without prolapse. Reinforced by conjunctival flap 22nd postoperative day. Final result: filtering cicatrix; vision 20/30.

Hyphema. Six cases. Two of the patients had diabetes and hypertension and a third had an old kerato-uvetis. In the remaining three cases the anterior chamber hemorrhage followed direct trauma to the eye. Good visual results were obtained in these three cases but one of them developed a retinal detachment eight months later.

Prolapse of iris. Three cases. Tip of pillar cauterized in one case; excision and an additional corneoscleral suture the second postoperative day was required for the second case; the prolapse in the third case, which occurred on the 10th postoperative day, required excision and a conjunctival flap.

Postoperative iridocyclitis. None. While it is true that possibly half of the patients with retained lens cortex developed some postoperative iridocyclitis there was no case in which the eye remained congested externally and an aqueous ray was present when the patient made his first postoperative visit to the office. None of the patients were given any mydriatic to be used in the eye when discharged from the hospital. One patient developed a marked anterior uveitis with hypopyon 21 months after operation, which responded well to intensive local treatment and penicillin. Resulting vision was 20/60. Another patient developed a mild anterior uveitis 4 months after operation which cleared with local treatment.

Retinal detachment. One case 8 months after operation, formerly mentioned, in which the patient struck his eye the 10th postoperative day, producing a large anterior hemorrhage. Operation was refused.

Secondary glaucoma. None to date in this series.

Resulting visual acuity. In 39% of cases vision was 20/20 or better; in 40% of cases vision was 20/25 or 20/30; and in 10% of

cases vision was 20/40. In the remaining 11% of cases vision ranged from 20/50 to 20/400.

20/15 vision — 15 cases
20/20 vision — 34 cases
20/25 vision — 25 cases
20/30 vision — 25 cases
20/40 vision — 13 cases
20/50 vision — 1 case
20/60 vision — 2 cases
20/70 vision — 1 case
20/100 vision — 3 cases
20/200 vision — 3 cases
20/400 vision — 3 cases

20/70 to 20/400 cases:

2 High myopia
3 Diabetic retinopathy
1 Central chorioretinitis
1 Preexisting glaucoma
1 Old kerato-uveitis
2 Unexplained

Astigmatism after operation. No correction for astigmatism was prescribed in 44% of the cases. The average astigmatism for the series was 0.85 diopters.

No astigmatism	55 cases	44%
Diopters: Less than 1.00	13 cases	10%
1.00 to 1.75	36 cases	29%
2.00 to 2.75	15 cases	12%
3.00 to 3.50	6 cases	5%
Total	125	100%

The author wishes to express his appreciation to Mr. Charles A. Schmitt, the artist who prepared the drawings.

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DISCUSSION

Dr. Ralph A. Davis, Chicago: Dr. Roper has given us an excellent presentation of Dr. Lancaster's technique of cataract extraction, together with his own modifications of the procedure. I have been privileged to see Dr. Roper do this type of cataract extraction and the manner in which attention is given to the smallest and yet very important details is impressive. I recall a paper that Dr. Lancaster presented before the Clinical Congress of the American College of Surgeons in Philadelphia, in October, 1930, in which he said: "We study the cataract operation to improve our results. At long intervals some new procedure makes for better results; at shorter intervals minor but important improvements are devised. But if we look for the explanation of the fact that some surgeons have better results than others, we shall find it in a multitude of details rather than in some special procedure, so that we must study the way the successful surgeon carries out the details of each procedure if we would find the secret of his success. When results are less than first rate, a surgeon may have made a wise choice among the many alternate methods of performing the various steps of the operation, but because he fails in some of the details in carrying out these procedures, his results are disappointing."

Dr. Roper has stressed the wisdom of careful and proper preliminary or basal anesthesia. If the patient co-operates badly at the operation, he feels that the surgeon and not the patient is to blame. The patient's higher centers are so depressed by proper sedation that he has little desire to move. By proper akinesia, the motor arc is abolished, and it is impossible for him to move, and the sensory arc is controlled by proper and adequate local anesthesia. He mentions the solution of novocain-pontocaine-cobefrin which gives the patient prolonged local anesthesia lasting sometimes for six hours postoperatively. This is important; when the effect of the local anesthesia wears away the patient usually becomes aware of pain which may last for a considerable period of time. He may assume that all is not well with his eye and this causes undue anxiety.

Dr. Roper has spent much time in the careful selection of his instruments. Every instrument has its proper place on the instrument tray, and this arrangement never varies. In fact, he supervises personally the placement of the instruments on the tray and each cutting instrument is tested before the operation is started. Again, he assumes the responsibility if a certain instrument fails to work properly.

His admonitions as to the proper decorum that should be kept in the operating room preceding and during the surgical procedure is worthy of mention. The successive steps of the operation conform in general with standard techniques that have been devised for intracapsular operations, with some variations. The conjunctiva is freed around the upper half of the limbus and a Van Lint or modified sliding flap is made. This type of flap has one valuable feature in that one is always assured of a conjunctival covering of the wound no matter what type section is made. The scleral groove at the limbal region is quickly made with the Lancaster guarded knife. This well-placed groove in proper position and depth greatly facilitates the placement of the three corneoscleral sutures. These sutures are not entirely easy to place, and if placed too deeply in the groove it is impossible to pull them aside so that a proper section can be made. However, the groove is made of such depth that the above difficulty is not frequently experienced. Dr. Roper fixes the eye entirely with the superior rectus suture while placing the corneoscleral sutures and this seems to give adequate fixation.

Occasionally a suture will be cut while the corneal section is being completed with the scissors; this can happen even when great care has been exercised. It is not difficult to replace the suture provided one has the proper type of fixation forceps for the cornea and the sclera. Dr. Roper uses the Kirby angular forceps and makes sure that the needle is passed through the cornea and sclera very close to the bite of the forceps.

I cannot see any advantage of not placing the twelve o'clock suture through both cornea and sclera at the same time. If the suture is withdrawn from the section it could still be used to lift the cornea, and I believe it would make for a slightly better closure of the section at twelve o'clock, which is the most important of the three sutures. His section is ample, and includes the upper half of the corneal circumference. Too small a section has been the cause of many poor results in intracapsular extraction.

The greatest achievement in cataract surgery is obtained by a successful intracapsular procedure with preservation of a round pupil. However, the element of safety has to be kept in mind, and it has been frequently stated that some form of complete iridectomy adds to this. In older people frequently co-operation in the postoperative course is not all that is to be desired.

When the lens has been removed the sutures are tied and the conjunctival flap covers the wound adequately. The anterior chamber reforms quickly. The advantages that corneoscleral sutures possess have been pointed out by Ellett, Stallard and Lindner and many others. They are (1) Firm closure of the wound with prompt healing; (2) reduction of postoperative hyphema; (3) less risk of prolapsed iris and vitreous; (4) less postoperative astigmatism; (5) better closure if vitreous presents at operation; (6) earlier reformation of the anterior chamber; and (7) greater freedom of movement for elderly patients and less danger for the unco-operative ones. These desirable features are possible to obtain if this technic is mastered well, as presented here by Dr. Roper. 125 consecutive cataract extraction cases have been presented, in 55 of which no astigmatism was found following extraction in the aphakic eye. The average astigmatism for the series was 0.85 diopters. The visual results were very good and no eyes were lost.

This paper has been well presented and Dr. Roper is to be congratulated on his ability to master details which has added much to his success in this field of surgery.

Dr. O. B. Nugent, Chicago: I was thinking of the long distance we have come since the first intracapsular operation; the first was the Smith. This wonderful improvement that has been made has been due to rational and careful study of each step in the operation, with the possibility of improving the technique and reducing the operative and postoperative complications. It would appear from Dr. Roper's presentation that this has been accomplished to a great extent. I remember when they used to report as much as 14 per cent vitreous loss with the Smith operation, and probably many more with a higher percent of vitreous loss that were not recorded. I did a great many Smith operations, and I know the incidence of vitreous loss is high. This has been overcome by careful and rational study of each step.

Dr. Kenneth L. Roper, Chicago: Dr. Davis asked about the 12 o'clock suture—why it could not be completed at the beginning, the same as the two lateral sutures. At the present time this is exactly what I am doing and I intend to change my illustrations showing all three sutures similarly placed before the eye is opened. (This change is shown in the present illustrations.)

When I was with Dr. Lancaster I used to frequently omit the 12 o'clock suture, and again I would insert only the corneal portion in the beginning, leaving the placing of the scleral portion until after the extraction was completed. In placing the scleral portion of the 12 o'clock suture after the eye is opened (or that of any suture that might have been accidentally cut) it is important to have a good forceps for picking up and holding the edge of the wound. I recommend the use of a Kirby angular forceps. The tissues should be grasped carefully and accurately so that the needle can be passed close to the bite of the forceps.

If only the corneal portion of the 12 o'clock suture had been placed and one was a bit fearful of completing it after the eye was opened, the suture could be removed after it had served its purpose as a traction suture. Few ophthalmologists use more than two sutures, and most only one.

I want to thank Dr. Davis and Dr. Nugent. I think paying attention to details helps to cut down many of the hazards and complications of cataract surgery.

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CARCINOMA OF THE LARGE BOWEL

An analysis of 237 patients treated at St. Luke's Hospital, Chicago, 1934-1944

LUCILLE A. SPRENGER, M.D.

This report presents the conclusions of an analysis of 237 patients with carcinoma of the large bowel treated at St. Luke's Hospital, Chicago during the ten years 1934 to 1944. They were selected in the order of their occurrence, dependent somewhat upon the availability of hospital records.

The incidence of carcinoma of the colon was greatest in the 50 to 70 year age group as illustrated in Figure 1. The youngest patient was 28 years and the oldest was 84 years of age. These statistics agree with those found in similar studies.

The sex incidence of carcinoma of the colon, unlike Bacon's[1] series and other corresponding surveys, showed no significant differences in men and women: 120 or 50.8% were men, and 117 or 49.2% were women.

TABLE 1
DISTRIBUTION OF CARCINOMA OF THE COLON
PERCENTAGE OF INCIDENCE

Site of Primary Tumor	Number of Cases	Percent of Cases
Cecum	14	6.0%
Ascending Colon	12	5.0%
Hepatic Flexure	3	1.2%
Transverse Colon	10	4.2%
Splenic Flexure	7	3.0%
Descending Colon	10	4.2%
Sigmoid	47	19.8%
Recto-Sigmoid	26	11.0%
Rectum	108	45.6%
Total	237	

The site of the carcinoma and the percentage of incidence are given in Table 1. According to this, over 80% of these lesions were on the left side of the colon and 45.6% of the total number occurred in the rectum. These figures agree approximately with those of Bacon, although in the distribution of the Mayo 1942 series[2] only 24.9% were found in the rectum. However, in the recent report on 817 carcinomas of the large bowel from the Mayo clinic[3] 4.2% were in the caecum, 3.7% in the ascending colon, 2.3% in the hepatic flexure, 4.1% in the transverse colon, 2.3% in the splenic flexure, 5.4% in the descending colon, 17.1% in the sigmoid, 10.6% in the rectosigmoid, 46.2% in the rectum, and 3.7% ano rectal. The distribution percentages of the lesions in this series, accordingly, agree closely with those in mine.

From the Henry Baird Favill Laboratory, St. Luke's Hospital, Chicago, Ill.

I am grateful to the various surgical services of the Medical Staff at St. Luke's Hospital for assistance and for the use of this material.

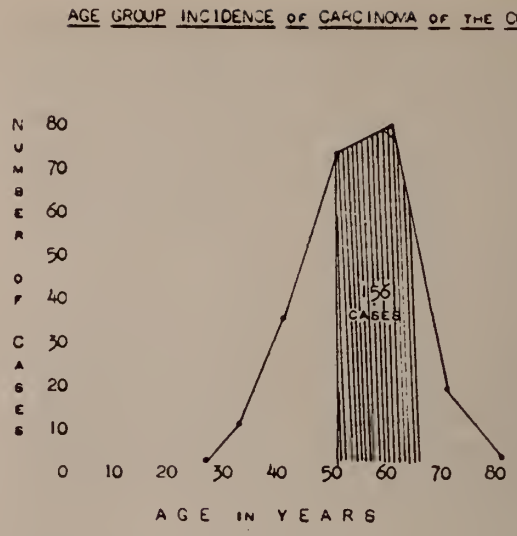


Figure 1

Most of the tumors of the series were annular ulcerating, frequently constricting carcinomas. Approximately 20% had a papillary structure. Histologically, over 80% of the carcinomas were glandular, this form being equally distributed throughout the large bowel. Pavement cell and papillary forms were found in the left side of the colon, predominantly in the sigmoid and rectum. An equal number of colloid carcinomas was found on the left and on the right sides. Too few tumors of the undifferentiated cellular structure were found in this series to justify any statement. The incidence of the five main types of carcinoma of the large bowel is shown in the following Table 2.

TABLE 2
INCIDENCE OF THE 5 MAIN TYPES OF CARCINOMAS OF THE LARGE BOWEL

Type	Number of Cases	Percentage
Glandular	208	87%
Undifferentiated	3	1.2%
Papillary	11	4.6%
Pavement Cell	8	3.3%
Colloid	7	2.9%
Total	237	

The presenting symptoms of patients with carcinoma of the colon varied remarkably. Only

three symptoms have been considered in this summary: a change in bowel habits, blood in the stool, and abdominal pain. These are the complaints most frequently given by patients. Any one may be present or sometimes none of them. However, a change in bowel habit in the form of constipation, or persistant diarrhea, and, rarely, an alternating constipation and diarrhea, was the symptom which brought the patient to his physician in 59% of 237 cases. Blood in the stool was noted in 55% of the cases, and abdominal pain was a symptom in 40% of the group.

A comparison of the symptoms resulting from lesions of the right and left sides of the colon disclosed only one significant difference. Blood in the stool was rather common in carcinomas of the left side, being present in 68.6% of the cases; whereas, only 15.3% of carcinomas of the right side had such a complaint. 63.1% of patients with lesions on the left side had a change in bowel habit as compared with 48.7% with carcinoma on the right side. Abdominal pain occurred almost as frequently in lesions of the left side as in lesions of the right side. The onset of abdominal pain frequently brought the patient to his physician earlier than the other complaints. However, symptoms often had a duration of a month to a year or more before the patient sought medical advice.

According to Rankin,[4] surgical extirpation of the carcinoma is the only treatment which offers a favorable prognosis, and he emphasized the importance of resection in the treatment of carcinoma of the colon. Among the 237 patients, 163 or 68.7% were treated by resection. These surgical procedures varied from resection with primary anastomosis to the abdominoperineal and Babcock techniques.

There is no record of 18 patients or 22% of the total 163 resections after release from the hospital. In discussing survival, these 18 patients were omitted. 72.4% of the resected cases, as compared to 43.1% of those cases not resected survived at least 1 to 4 years. 25.2% of the resected cases survived 5 years, whereas only 6.8% of those not resected survived for this length of time. These percentages are shown in Table 3.

Metastasis, which formerly was a reason for doubting the advisability of resection, is no longer regarded as sufficient cause for simple palliative measures. The decision that the radical removal of the growth should be undertaken in the presence of liver metastasis has been generally accepted, according to Lahey[5], Rosser[6], and others. Thus, death is delayed and the patient is able to realize some years of life with a much greater degree of comfort than might otherwise have been possible.

TABLE 3
RESECTION AND PERIOD OF SURVIVAL IN CASES WITH CARCINOMA OF THE COLON

Years Survival	163 Cases Resected	74 Cases Not Resected	Resected Cases 60 With Metastases	Resected Cases 103 Without Metastases
1-4	72.4%	43.1%	64.9%	78.2%
5	25.2%	6.8%	10.2%	33.3%
8	7.1%	6.8%	4.0%	8.9%
10	3.9%	0	4.0%	3.8%

The presence or absence of metastases at the time of resection has a significant effect on the 5 year survival rate, whereas the difference between cases with and without metastases in the 1 to 4 year period of survival is not so marked. 64.9% of the resected cases with metastases lived 1 to 4 years or longer, while 78.2% of those without metastases lived for the same length of time. Only 5 cases or 10.2% of those with metastases survived 5 years or longer; 26 cases or 33.3% of those without metastases lived for a similar length of time.

Radiation, as another form of therapy, has been used with negligible effect on the progress of carcinoma of the large bowel[7]. Of the present series, 24 cases received varying doses of x-ray, 18 of these had had a previous resection. 83.3% of the cases so treated died within the year.

CONCLUSIONS

The incidence of carcinoma of the large bowel was greatest in the 50 to 70 year age group.

There was no significant difference in the sex incidence of carcinoma of the large bowel.

80% of carcinomas of the large bowel occurred on the left side of the colon. 45.6% of the cases in this series occurred in the rectum.

Histologically, 87% of the carcinomas of the large bowel were glandular in structure, 4.6% were papillary, 3.3% were pavement cell, 2.9% were colloid, and 1.2% were undifferentiated.

A change in bowel habits, blood in the stool, and abdominal pain were the most frequent symptoms in carcinoma of the large bowel. Blood in the stool was recognized in 68.6% of lesions located on left side, as compared to 15.3% of the

cases on the right side. No other marked disparities were noted in symptoms produced by lesions in the right and left sides of the large bowel.

The survival of patients who were subjected to resection was noticeably, longer than those not resected.

Resected cases in whom metastases were not observed had a more favorable chance for survival of 5 years or longer than those with metastases.

Radiation therapy alone, as applied, seems not to inhibit the progress of carcinoma of the colon.

The engraving used to illustrate this article was supplied through the courtesy of the Illinois Division of the American Cancer Society.

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THE SUCCESSFUL USE OF PENICILLIN IN THE TREATMENT OF SUBACUTE BACTERIAL ENDOCARDITIS

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The successful use of penicillin in the treatment of subacute bacterial endocarditis has produced one of the most dramatic changes in prognosis recorded in the history of medicine. Prior to chemotherapy most observers during a lifetime of practice failed to see a single cured case of subacute bacterial endocarditis. Sulfonamides brought a faint ray of hope with the cure of a few cases although the number was relatively small. Penicillin has changed the picture entirely and we are now able to treat these patients with confidence, knowing that most of them may be cured.

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TABLE 1
SUBACUTE BACTERIAL ENDOCARDITIS TREATED WITH PENICILLIN

Author	No. Cases	Living At Time of Report	Percent Living
Seabury (3)	12	7	58.3
Glaser (4)	22	14	63.6
Priest (5)	34	22	64.7
Favour (6)	20	11	55.0
Geiger (7)	3	3	100.0
Flipp'n (8)	20	12	60.0
Mokotoff (9)	17	14	82 3
Hunter (10)	49	41	83.0
McMillan (11)	12	11	92 0
Christie (12)	147	81	55.1
Levy (13) (less cases included above)	215	107	49.7
Irwin (14)	9	6	66 6
Rykert (15)	15	5	33.3
Total	575	334	58.0

Lichtman[1] in 1943 reviewed 2,596 cases treated before chemotherapy with a mortality rate of 99 percent. He presented reports of 13 authors. Nine reported no recoveries and only one had seen more than a single cured case. Undoubtedly thousands of fatal cases treated by many excellent clinicians were never reported in the literature.

Lichtman reported 704 cases of subacute bacterial endocarditis of his own and others treated with sulfonamides either alone or combined with heparin or hyperthermia. The percentage of recoveries was 5.5 percent being highest (15.5 percent) in the group having chemotherapy and intravenous typhoid vaccine.

When penicillin was first used in subacute bacterial endocarditis the results were very discouraging and the majority of the patients died. As the supply of penicillin became more abundant larger doses were used over a longer period of time and more encouraging reports appeared.[2] Numerous reports have been published with the recovery rate in series of more than ten cases being as high as 92 percent. Thirteen authors reporting 575 cases (Table 1) treated with penicillin have a combined recovery rate of 58 percent. (Levy's[13] review included both his own and cases reported by others but where duplica-

TABLE 2

METHOD OF TREATMENT OF SUBACUTE BACTERIAL ENDOCARDITIS WITH PENICILLIN

Author	Method of Administration	Daily Dose (Units)	Duration of Treatment (Days)
Seabury (3)	IM Drip	200,000	14-106
Glaser (4)	IM q 2 hours	480,000	42 plus
Priest (5)	IV Drip	500,000	14-64
Favour (6)	IV Drip	240,000 - 500,000	14-28
Geiger (7)	POB q 12 hours	600,000	30
Flippin (8)	IM q 2 hours plus booster	500,000	50
Mokotoff (9)	IM q hour	200,000 - 300,000	21-28
Hunter (10)	IM Drip	500,000	14-28
Christie (12)	IM Drip or IM q 3 hours	500,000	28
McMillan (11)	IM	250,000	42-56
Anderson (16)	IM q 2-3 hours	300,000	14-21
Levy (13)	IM q 2 hours	200,000	28
Rykert (15)	IM Drip or Inj.	200,000 - 500,000	21 plus
Irwin (14)	IM Drip or Inj.	500,000	35

tion occurred a correction was made in the figures presented in Table 1). Many of these reports included early failures when the supply of penicillin was inadequate. The results in the adequately treated cases are much more favorable in all series.

The method of treatment varies in different clinics (Table 2). An intravenous drip of penicillin seemed to be the method of choice in the early reports but this is a tedious procedure requiring almost constant attention. The constant intramuscular drip is preferred by some. However, there is no evidence that either of the above procedures is superior to intermittent intramuscular injections. The interval between intramuscular injections is suggested at one to three hours. The results reported by those giving the injections every hour do not seem any better than by those using the three hour interval although it is well established that little penicillin remains in the circulating blood after two hours. Flippin[8] has used a booster dose in addition to the regular intermittent intramuscular dose. Geiger[7] has treated three patients with penicillin in peanut oil and beeswax with satisfactory results. The preparation was given intramuscularly every 12 hours.

The average daily dose of penicillin (Table 2) has varied from 200,000 units to 600 000 units. This has been given over a period of time varying from 14 to 106 days in successfully treated patients.

This report includes five patients (Table 3) with subacute bacterial endocarditis successfully treated with penicillin. They were treated in two general hospitals having the average facilities and personnel available in a moderate sized city. The ineffectiveness of inadequate amounts of penicillin followed by recovery after the use of adequate amounts is well demonstrated in two patients. The problem of reinfection after an apparent cure is presented by one case. The precipitating factor of dental extraction is indicated in the same patient. All patients were women and their ages varied from 15 to 44. Streptococcus viridans was isolated in the blood cultures taken in all cases. Rheumatic heart disease was found in every case. Mitral stenosis and mitral insufficiency were present in one, mitral insufficiency without evidence of other valvular lesions in another, and mitral stenosis and insufficiency and aortic insufficiency in the other two. The duration of the disease before treatment varied from four days to three months.

All patients were treated with intermittent intramuscular injections of penicillin. The majority received 40,000 units every three hours. Fifty thousand units were given to one patient every two hours for 15 days and then 40,000

TABLE 3

Case	Age	Valvular Lesions*	Duration of Symptoms	Range of Daily Dose (Units)	Duration of Treatment (Days)	Total Penicillin (Units)	Remarks	Follow-Up (Months)
B. W.	29	M. S. M. I. A. I.	3 Mos.	320,000	31	9,920,000	Well	24
L. P.	23	M. S.	3 Mos.	320,000	37	11,700,000	Previous hospital admission with 1,360,000 units during 21 days, followed by relapse. Decompensated since last hospital admission.	20
G. W.	22	M. S. M. I. A. I.	5 Days	320,000	38	11,980,000	Decompensated on admission. Auricular fibrillation developed in hospital. Treated with digitoxin, salt free diet, ammonium chloride, mercurial diuretics. Compensated and working.	14
B. M.	15	M. S. M. I.	3 Mos.	400,000	31	11,850,000	Previous hospital admission with 1,680,000 units during 7 days followed by relapse. Attending school.	12
N. M.	44	M. I.	0 Days 4 Days	320,000 320,000-600,000	31 46	9,600,000 18,920,000	Cerebral embolism on admission. Reinfection 1 year later with second recovery.	18

*M. S. MITRAL STENOSIS
M. I. MITRAL INSUFFICIENCY
A. I. AORTIC INSUFFICIENCY

units every three hours for an additional 31 days. Another received 50,000 units every three hours for 31 days. The total dosage varied from 9 600,000 units to 18,920,000 units. The duration of treatment was 31 to 46 days.

The follow-up period has been 12 to 24 months. At present none show any evidence of subacute bacterial endocarditis.

The first patient (B.W.) treated was a 29 year old woman with mitral stenosis, mitral insufficiency and aortic insufficiency. Her course during treatment at Christian Welfare Hospital and through the follow-up period of 24 months has been uneventful. She is well and able to take complete care of her family including her husband and several children. She has never had any evidence of cardiac decompensation.

The second patient (L.P.) has been readmitted to both Christian Welfare and St. Mary's Hospitals on several occasions because of decompensation, which followed an apparent cure of subacute bacterial endocarditis. She does well when her digitalization is maintained but has carelessly discontinued digitalis on several occasions. In addition to digitalis, mercurial diuretics, salt free diet, ammonium chloride and thoracenteses have been necessary. This patient had an almost immediate relapse after an ineffective dose of penicillin had been given on a previous hospital admission. At that time she had been treated

during a 21 day period with 1,360,000 units. The successful course of treatment outlined in Table 3 was started about two months following discharge from her first hospital admission.

The third patient (G.W.), a 22 year married woman, was decompensated when first examined after admission to St. Mary's Hospital. Chills and fever had been present five days. In addition to intramuscular penicillin every three hours she was digitalized and placed on a salt-free diet plus mercurial diuretics and ammonium chloride. A persisting auricular fibrillation occurred during the course of treatment. She has maintained her compensation on digitalis and is able to perform secretarial duties in addition to necessary housework in a small apartment.

The fourth patient (B.M.), a 15 year old girl, was treated in a hospital elsewhere three months before entering Christian Welfare Hospital. After receiving 2,000,000 units in seven days, her fever subsided and she was discharged. Subacute bacterial endocarditis was suspected but a blood culture was negative. A relapse occurred within a few weeks. Treatment in Christian Welfare Hospital consisted of 50,000 units of penicillin every three hours for 31 days. During the past year she has gained eight pounds and is in school leading a fairly normal life. She has never had any evidence of cardiac decompensation.

CASE REPORT

The last patient (N. M.), a 44 year old married woman, will be reported in detail because of the diagnostic problem on admission and the unusual occurrence of a probable reinfection following dental extraction one year after an apparent cure. The patient was admitted to St. Mary's Hospital on September 11, 1945 after being found in a semi-stuporous state. There was no previous history of heart disease. She had been under the care of her family physician for nervousness associated with the menopause. On admission she was semicomatose and unable to move the right arm and leg. She was unable to talk. Physical examination revealed a right hemiplegia. There was moderate neck rigidity. Many teeth had been removed and there was a considerable degree of pyorrhea about the gingival margins of the remaining teeth. A grade one systolic murmur was heard at the apex. Blood pressure was 130 mm. systolic and 70 mm. diastolic. Temperature was 103 degrees F. and apex rate 90 per minute. The remainder of the physical examination was negative.

Laboratory examinations on admission were as follows: red blood cells 3,800,000 per cu. mm., 73% hemoglobin, leukocytes 8,600 per cu. mm. Schilling Differential: 21 stab cells, 39 segmented forms, 36 lymphocytes and 4 monocytes. Urinalysis (catheterized): specific gravity 1.030, reaction acid, albumin 2 plus, sugar negative, numerous red blood cells and a few white blood cells. Blood Wasserman and Kahn negative. Spinal puncture: cell count 520 per cu. mm. (85% leukocytes and 15% lymphocytes), sugar 65 mg. percent, Pandy 3 plus, colloidal gold negative, Wasserman negative, culture no growth.

During the first week of hospitalization temperature varied between 100 and 102.3 degrees. Physical examination showed no change except for an increase in the intensity of the apical systolic murmur and the appearance of a few questionable petechiae on the abdominal wall. Blood culture on September 16, 1945 showed an abundant growth of streptococcus viridans. The same finding was reported on a second culture taken on September 18, 1945.

Penicillin was given intramuscularly every three hours (40,000 units) for 31 days (9,600,000 units). Within two days after the penicillin was begun the temperature did not exceed normal except for one slight transient elevation to 99.5 degrees. One transfusion of 500 cc. of blood was given. Subsequent blood cultures were sterile.

The patient was discharged from the hospital on October 18, 1945. There was a slight residual of the right hemiplegia and some speech defect. Aside from severe nervousness and emotional upsets she remained well until September, 1946.

On September 27, 1946 she was readmitted to St. Mary's Hospital. Six days before admission two right upper premolars had been extracted. Two days later she complained of chilly sensations, fever and fatigue. The following day pain appeared in the third left metacarpophalangeal joint. Physical examination on admission revealed an acutely ill patient with a temperature of 103 2 degrees, pulse rate 128 per minute and blood pressure 90 mm. systolic and 54 mm. diastolic. She was drowsy but could be aroused. The residual of the right hemiplegia persisted. Numerous petechia were observed on the abdominal wall. There was a rough systolic murmur at the apex and one of less intensity at the aortic area. A few moist rales were heard at the base of the right lung posteriorly. The third metacarpophalangeal joint was red, swollen and tender. Laboratory examinations were as follows: red blood cells 3,700,000 per cu. mm., white blood cells 10,000 per cu. mm., hemoglobin 62%. Schilling differential: 17 stabs, 68 segmented forms and 13 lymphocytes. Urinalysis was negative. Two blood cultures were taken on the day of admission and streptococcus viridans was isolated in both.

Since the presence of subacute bacterial endocarditis seemed rather certain and the patient was critically ill penicillin was started immediately after the blood cultures were taken. The initial dose was 50,000 units every two hours for 15 days and 40,000 units every three hours for an additional 31 days. The total number of units given was 18,920,000. During the latter part of the course of penicillin the remaining 24 teeth were extracted.

Subsequent blood cultures have been negative. In spite of a slight residual from the right hemiplegia she

is able to do most of her housework, has gained weight and is feeling very well.

Apparently the results of cerebral embolism were the first manifestations of subacute bacterial endocarditis in this patient. The increasing intensity of the apical systolic murmur, the red blood cells in the urine, the questionable petechiae and the absence of other diagnostic findings suggested the presence of subacute bacterial endocarditis and this was confirmed by the positive blood cultures. Seabury[3] states that 67% of the patients in his series had an onset of symptoms characterized by acute embolization and that many were admitted to the neurological or neurosurgical service. He does not state the percentage with cerebral emboli.

One year after an apparent cure she had a probable reinfection two days following dental extraction. Since the strain of the organism was not determined there remains some doubt about the occurrence of reinfection rather than a possible relapse. However, reinfection seems more probable since the reported cases of relapse have occurred within a relatively short time after a course of penicillin has been concluded. The relation of dental extraction to the development of subacute bacterial endocarditis is well known. The time interval after dental extraction and the onset of bacterial endocarditis is definitely indicated in this case. The remaining teeth were removed during the course of penicillin in an attempt to prevent a recurrence of the infection.

SUMMARY

Five cases of subacute bacterial endocarditis were successfully treated with penicillin. All received intermittant intramuscular injections every two to three hours. The average dose was 40 000 units every three hours but two patients received 50,000 units every two and three hours respectively. The total dose varied from 9,600,000 to 18,920,000 units given over a period of 31 to 46 days. Two patients had developed a relapse after an initial inadequate amount of penicillin but recovered after adequate treatment. Another patient had a probable reinfection after dental extraction following an apparent cure of subacute bacterial endocarditis. The problem of cardiac decompensation was encountered in two patients. None of the five patients show any evidence of subacute bacterial endocarditis after an observation period of 12 to 24 months.

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DIAGNOSIS AND TREATMENT OF EXTERNAL OTITIS

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The characteristic obstinacy of external otitis and its provoking tendency toward recrudescence has placed it in the category of conditions which still tax the patience of the otologist. The long list of drugs which have been advocated for treatment of external otitis provides adequate testimonial that the condition remains one of the unsolved problems of otology.

Turning briefly to etiology it is important to review some of the anatomic and histologic circumstances which favor saprophytic growth in the external auditory canal. Anatomically,

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the canal is a blind, somewhat tortuous tube some 25 to 35 mm in depth. It may at times be damp and dark. It is often totally or partly occluded by cerumen or barriers of hair. In contrast to other "blind alleys" of the body there are no natural cleansing mechanisms other than gravity. Artificial cleansing necessitates a visit to the otolgist, deemed unnecessary by the average individual unless symptoms of irritation or obstruction supervene.

From the viewpoint of histology the epithelial lining of the external auditory canal is a continuation of the integumental covering of the auricle, but changes somewhat in character as it progresses inward. Hair follicles as well as sebaceous and cerumenous glands are to be found in the external third, but are absent in the internal two-thirds. These structures are of etiologic importance because they are subject to all the pathological changes encountered in similar structures elsewhere over the surface of the body. In addition, the epithelial lining of the pouch has a rather marked tendency toward proliferation; thus there is often an accumulation of epithelial debris which, when mixed with dirt, cerumen and perspiration, forms an excellent medium for the growth of both bacteria and fungi. Of histiologic interest from the standpoint of symptomatology is the fact that the integumental covering of the canal wall is stretched tightly inside the bony and cartilagenous tube with very little sustaining loose areolar or elastic tissue; thus even minor degrees of inflammation or edema are accompanied by pain out of all proportion to the size of the involved area.

As has been pointed out, accumulation of degenerated epithelial debris offer ideal media for many forms of saprophytic growth. Such a growth is enhanced by fatty and oily substances, especially if in an acid medium.[1,6] Further, it has been demonstrated that heat, high humidity and darkness offer optimal conditions for the support of such growth. It is, therefore, not difficult to understand why both bacteria and fungi of several types can be cultured from the external auditory canals of large groups of individuals, many of whom have no symptoms whatsoever.

For the usual groups of fungi or bacteria to invade the structures of the canal wall; several observers believe that in most instances a "linking factor" is necessary. The two most common "linking factors" are excessive moisture, which brings the organisms into contact with the substrate,[6] and trauma, which makes possible direct penetration of the protective layers of the substrate. Extreme virulence of the organisms or the presence of debilitating disease such as diabetes mellitus undoubtedly augment invasion. The linking effect of moisture is probably of more importance in the production of external otitis following swimming than is contamination by the water itself. Trauma to the canal epithelium through scratching or picking is a common cause of penetration of the barrier.

The most common of the organisms cultured from the external auditory canals of individuals with definite symptoms of external otitis are the fungi (aspergilli, monilia, penicillia and muccor) and the bacteria (staphylococcus aureus, staphylococcus albus, diphtheroids, bacillus pyocyaneus and micrococci).[1,2] Peculiarly, the true pathogenic fungi such as the trichophyton are found in the external canal only rarely.[6]

Formerly, most external otitic inflammations were thought to be due to the presence of fungi. The bacteria found associated with the fungi were held to be secondary invaders. During the past few years, however, there has been an accumulation of evidence favoring reversal of this conception; thus it is now believed by several competant observers that the fungi which are found in the canal may be more or less normal inhabitants which do not invade normal tissue until bacteria, aided by excessive moisture or trauma, have prepared the way through the protective barrier. Bacillus pyocyaneus, formerly considered to be a secondary contaminant, is now regarded as one of the most common of the primary invaders.

Before considering diagnosis and treatment, it is good policy to have in mind some form of classification of the various facets of this entity. There are many classifications of external otitis. A useful and workable grouping with some of the associated organisms is as follows:

External Otitis.

1. Acute external otitis
 (a) circumscribed: usually due to staphylococci.
 (b) diffuse: usually due to bacillus pyocyaneus, diphtheroids, streptococci, micro-

cocci, various fungi, probably secondary invaders.

2. Chronic external otitis
 (a) allergic: various contaminants.
 (b) eczematoid: bacillus pyocyaneus, staphylococcus aureus.
 (c) seborrheic: bacillus pyocyaneus, staphylococcus aureus
 (d) otomycotic: various fungi
 (e) bacterial: bacillus pyocyaneus, staphylococci, diphtheroids.

Turning to diagnosis and treatment, the category of acute circumscribed external otitis can be dismissed lightly, as this group to all intent and purpose represents simple folliculitis or furuncle of the skin. As secreting glands and hair follicles are present only in the external third of the canal, it is found only in that region. The causal organism is usually staphylococcus aureus; occasionally it is other staphylococci or streptococci. The only unusual feature is pain, out of proportion to the size of the lesion. Treatment consists of localization and incision, with care to prevent spread into other follicles. Usually a small wick of sufathiazole ointment will prevent such an extension. In cases of widespread involvement of extreme virulency, the internal administration of sulfonamides and the intramuscular use of penicillin has proved well worth while.

Diffuse external otitis presents a much more complicated if less spectacular problem. The commonest complaints which bring the patient to the otologist are those of pain and discharge from the canal. Differential diagnosis must include acute otitis media and acute mastoiditis. The most characteristic differentiating features of diffuse external otitis are exquisite pain upon movement of the auricle or upon pressure exerted against the tragus. Unless the canal is completely obstructed — a rare circumstance — the depression of hearing, although of the same conduction type, is much less profound than would be expected in middle ear disease or acute mastoiditis. If there is protrusion of the auricle, the postauricular fold is absent in acute diffuse external otitis, whereas it is present in acute mastoiditis.[4] Roentgenograms are not completely reliable as a differential diagnostic aid, because edema of overlying structures will cloud the cellular outline to such an extent that there may be an appearance of eary cellular destruction.

The primary objectives of treatment of acute diffuse external otitis are (1) reduction of edema of the canal wall to facilitate inspection and removal of debris; (2) careful removal of the debris to facilitate drainage; (3) control of the bacteria or fungi which are producing the inflammatory condition.

The first logical step is isolation of the organism through culture on blood agar plates for the usual causal bacteria, and onto Sabouraud's dextrose agar slants for the study of fungi. Other special media may be necessary for completion of the study.

Reduction of the edema of the canal wall can usually be accomplished by simply packing it with a long fiber cotton wick saturated with metacresyl acetate in full strength if tolerated, or diluted half with olive oil.[3] The swelling is usually reduced within twenty-four hours. The canal should then be carefully cleaned by means of cotton-tipped applicators dipped in metacresyl acetate. Rather than produce trauma to the canal wall it is better to irrigate with boric acid solution. This procedure does not entail risk of exacerbation if performed carefully and if the canel is properly dried by repeated applications of 70 to 90 per cent alcohol.

As demonstrated by Senturia[5,6,7] at the Army Air Forces School of Aviation Medicine, and by Quayle[8] of Australia, most of the etiological organisms, bacteria and fungi alike, respond to local treatment with the sulfonamides. Senturia advocates the use of sulfanilamide, sulfathiazole and zinc peroxide powder mixtures in 4:4:2 proportions. It should be noted that powder, not crystals, is used. We have recently been quite successful with finely ground sulfadiazine powder used alone.

The successful use of sulfonamide powder or powder mixture applications is due to their fungicidal and bactericidal properties, as well as the drying action of the powder. Most clinicians who have used the sulfonamide powders agree that in most instances they represent a very definite therapeutic advancement. There is, however, one difficulty which detracts to some extent from the efficacy of the treatment, but which can readily be overcome. That is the

tendency of the powder to cake in the canal and to remain for some time if it is not removed. First of all, the powder must be carefully applied by means of a well-guided mechanical powder blower. Only sufficient powder should be blown in to form a very thin, almost translucent film over the entire canal wall. As long as the discharge persists the material will be carried out in the exudate. When drying occurs the powder will tend to accumulate and, if not applied with caution, will cake and possibly occlude the canal. Should this occur, it is the best to wash out the caked powder by means of a 2 or 3 per cent aqueous solution of soda bicarbonate, or 3 to 5 per cent solution of hydrogen peroxide. Following irrigation, a 70 to 90 per cent solution of ethyl alcohol should be repeatedly instilled for the purpose of completely drying the canal. It should not be necessary to warn that irrigation should not be attempted until it is known that no perforation of the drum exists. Washing bacteria and debris into the middle ear is fraught with danger.

Between powder applications we have found that the treatment can be effectively augmented by having the patient instill nightly a few drops of a solution of 5 per cent sulfanilamide, 10 per cent urea and 3 per cent chlorabutinol in glycerine. This mixture aids the removal of the surplus powder, the urea acting to some extent as a chemical debriding agent.

After control of the acute process, the patient is instructed to continue the use of the drops on alternate nights for a week, then every fourth night for a week or two. When the process has completely subsided the patient continues to use the drops one night per month for several months, or at least through the hot humid months during which recurrence is most likely to take place.

A word of caution must be interjected at this point. A few individuals are sensitive to certain of the sulfonamides when applied locally. Should their use be associated with an increase in symptoms or exacerbation of the inflammatory process further application should be discontinued.

The local use of penicillin has not been successful in treatment of diffuse external otitis in the hands of most otologists. In several instances it has actually caused exacerbation.

While treating persistent diffuse external otitis one must not fail to look for possible causes beyond the canal itself. The possible presence of metabolic or nutritional disorders must always be considered. Diabetes mellitus is a common predisposing condition. Nephritis and hypothyroidism, as well as other conditions which alter the fluid balance of the body, or which produces accumulations of fluid in tissues, should always be considered.

It may be of interest at this point to describe a recent experience emphasizing the aid one may receive from extensive use of laboratory procedures. A young woman was referred because of acute bilateral diffuse external otitis which had not responded to various forms of treatment over a period of six months. Foul-smelling pus was exuding from both ears, producing excoriations where it flowed over the skin surface at the entrance to the meatus. A complete laboratory study revealed the presence of many trichomonas in her urine. A study of the pus exuding from the external auditory canal demonstrated the same organisms. A few applications of sulfadiazine powder and a few treatments by a competent gynecologist were followed by complete cure, without recurrance. This condition, it is admitted, is rare, but it demonstrates that no examination is complete without the laboratory aids.

Turning to chronic external otitis: In this condition the otologist is often confronted with a difficult problem which will very often tax his diagnostic acumen. From the standpoint of symptomatology, itching, irritation and accumulation of scale-like debris are among the most common complaints. Frank pus usually is not seen; however, culture of the debris will very often demonstrate bacteria or fungi which will respond to bacteriocides or fungicides. The eczematoid and seborrheic varieties represent skin disorders, usually a part of a generalized dermatologic disease. Very often a dermatologist can point out situations or courses of treatment which are quite helpful. These categories often respond to mild tar ointments or to calamine preparations.

The allergic category may present eczematoid manifestations. Here the otologist must become detective. Hair dyes, shampoos, soaps and cosmetics must be considered. Varnishes used on the nails, with which the patient unconsciously scratches the year, are not an unusual cause. Industrial contact agents, as well as foods and other forms of allergens, must be kept in mind. Occasionally the anti-histimine drugs, such as benadryl, are helpful at least in diagnosis.

In the bacterial or fungus groups, metacresyl acetate diluted with olive oil is useful, as are light powderings with the sulfonomides. The canal must be kept free of debris or acute diffuse external otitis may supervene. Again all diagnostic aids, laboratory as well as clinical, must be intelligently employed to disclose underlying predispositional factors. The cause will usually be found to lie outside the environs of the ear itself.

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DISCUSSION

Dr. Lars Svensen, Kalmar, Sweden: I really do not have anything to add to Dr. Campbell's paper. Regarding treatment, I think it is of great value to point out that we must evacuate pus when there is pus present, and when this is done it is essential that we avoid spreading the process. In the treatment for acute otitis externa, I think we have to keep the canal as dry as possible. I prefer drying with penicillin mixed with sulfa. We have also it with alcohol. Now and then we see good results obtained good results with light x-ray treatment. If we do not succeed we put the patient to bed and give sulfonamides and penicillin. In the office it is important to look for the specific organism and treat it. If this is not done we have no success. We see a lot of external otitis in summer in Sweden, and we teach these patients how to dry the external canal with 75 per cent alcohol as a prophylactic. The chronic cases are difficult to treat, especially if there is no known allergen. They are likely to put in hairpins and matches into the canal, and damage the epithelium.

CHRONIC AMEBIASIS OF THE CECUM

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It has long been known that amebiasis is not strictly a tropical disease. The reported incidence in this country varies widely depending on the geographical location and the expertness and skill with which the studies are made. Craig and Faust[1] estimated that 13,000,000 people in this country are infected. With the return of large numbers of military personnel from tropical and semi-tropical areas and with increased world-wide travel, it may be expected that the incidence of this disease has been significantly increased in all parts of the country.

The diagnosis of amebic colitis is not readily made and confirmed except in those areas where the infection is endemic. There are several reasons for this. The insidious character of the disease with its long incubation period, slow onset, often with no incapacitating symptoms, long remissions, the elusiveness and difficulty in identifying the cyst or trophozoite in the stool or proctoscopic specimen, all these factors plus a general lack of awareness of this disease in temperate climates are responsible for its infrequent diagnosis. The absolute diagnosis, of course, is dependent on the laboratory examination, but as obtains in most diagnostic problems, it is the correlation of the data derived from all sources, the clinician, the proctoscopist, the roentgenologist and the pathologist which will give us the complete diagnosis.

The role of the roentgenologist in amebic colitis is limited to the extent that no pathognomic sign or pattern is produced by which an unqualified diagnosis can be reached. However, there are often roentgen changes manifested in the cecum which have been seen sufficiently frequent by a number of independent observers so that these findings have come to be associated with chronic amebic colitis. The findings consist of alterations

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in the cecum as to its size, shape, position, mobility, pliability, mucosal pattern and muscle tonus. All these factors tend to reflect the gross morphology of the cecum and it is to these findings that roentgen methods are admirably suited.

It is generally known that although any or all portions of the colon may be affected in amebiasis, the cecum is most frequently involved. The x-ray manifestations of this disease have been described by many investigators, but relatively few have given proper emphasis to the changes that occur in the cecum in this disease. This is unfortunate because it is in the cecum that the changes are often greatest in intensity and they are more readily elicited in this portion of the bowel than elsewhere. Furthermore, most of the changes elsewhere in the colon which are produced by amebic ulceration tend to return to normal after anti-amebic therapy, but the cecum often remains permanently defective. It is for this reason that it may be possible to detect latent and sub-clinical carriers of amebiasis by roentgen examination.

Weber[2] has described and emphasized the cecal findings in amebic colitis. He has stated that the cecum demands particular attention since it has been the site of maximal roentgen change in every instance in which he offered a diagnosis of amebic ulcerative colitis. Reference is also made to the work of Bell[3] in which he too observed that the cecum was abnormal in each case in which a diagnosis of sub-acute or chronic amebic dysentery was made. Recently Golden[4] has reported the x-ray findings of a relatively large series of cases of amebic colitis. Of 67 patients with amebiasis examined by x-ray methods, deformity of the cecum was found in 30. In several of the cases so dignosed, the first indication that the patient might have amebiasis came from the demonstration of a deformed cecum.

Within limits, the cecum is rather uniform as to size and shape. It usually occupies a rather constant position in the abdomen. Variations are familiar to everyone. The barium filled cecum also has rather uniform physiological behavior as to its distensibility, pliability, mobility and muscular tonus. Its mucosal pattern is somewhat variable, but gross defects can be recognized. In many of these respects the cecum is comparable to the duodenal bulb and changes in morphology and physiology of the cecum due to chronic ulceration are almost as tell-tale and irreversible as they are in the bulb.



Figure 1: Post-evacuation film of patient who had amebic infection ten months previously. Patient became asymptomatic following first course of anti-amebic therapy but because of the roentgen findings, a second course was given after which this film was obtained.

The cecum is high in position and shrunken in appearance. Notice normal mucosal pattern in the terminal ileum and ascending colon.

In acute amebic dysentry the x-ray findings are of little diagnostic value. They consist mainly of painful spasm, tenderness, narrowing and general irritability of the involved segment or segments. The changes in the bowel will vary depending on the severity, type and duration of the infection, the presence of secondary bacterial invasion, the resistance of the host, and the amount of anti-amebic therapy received. In general, with extensive repeated ulceration and with secondary bacterial infection, a hyperplastic reaction is produced in the walls of the intestine which results in some remarkable changes. The cecum usually becoming involved loses its pliability. Its lumen becomes narrow, irregular and rigid. The mucosa is heaped up and coarsely nodular in appearance. Instead of being smooth and cup-shaped with uniform haustration, it becomes irregularly pouched or cone-shaped with loss of the haustral markings. The cecum which

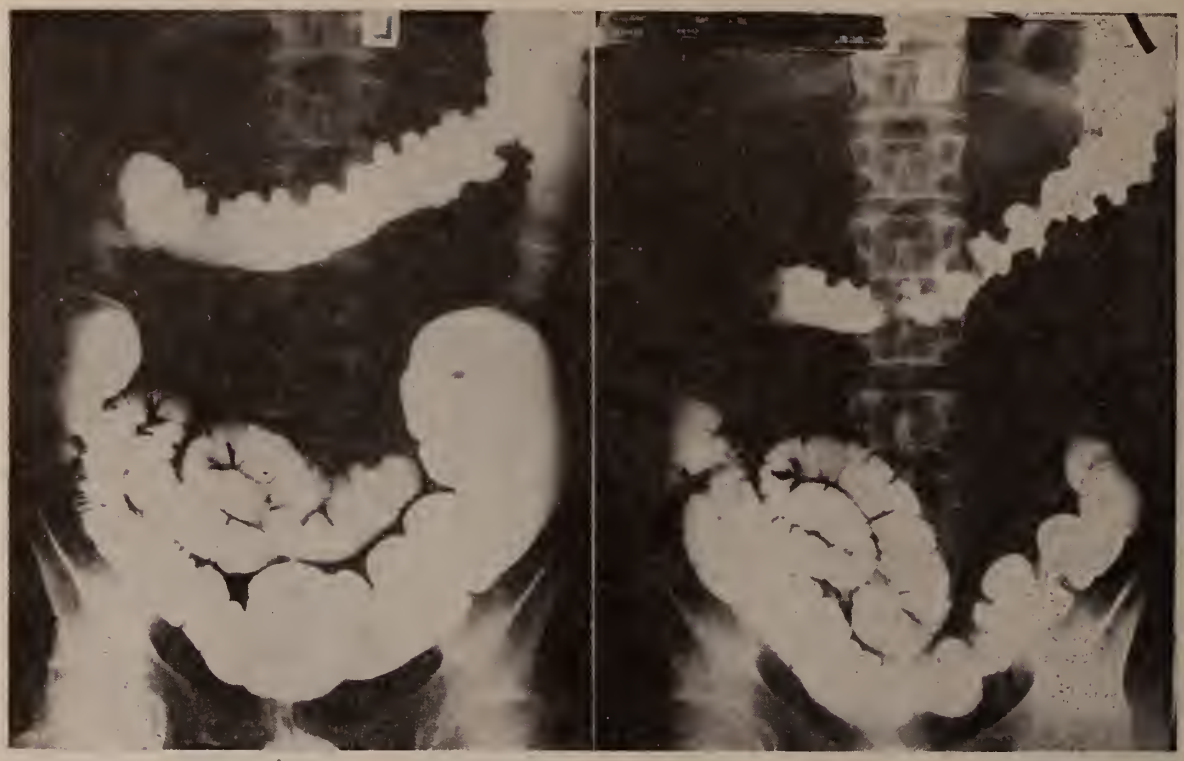


Figure 2A (left) and 2B (right): History of intermittent diarrhea for past nine years. Stools were positive for endameba histolytica. Opaque enema (left) shows a rather typical funnel or cone shaped deformity of the cecum. The ileum was unavoidably over-filled. The post-evacuation film (right) shows no change in calibre or contour of the cecum. The cecum has not emptied.

usually lies over Mc Burney's line becomes contracted and shortened so that it comes to lie on a level with the posterior iliac crest. As in most chronic inflammatory diseases of the colon, there is no sharp line of demarcation between the cecal involvement and contiguous ascending colon but in all the cases observed no evidence of abnormal change was found in the adjacent ileum. These are important differentiating factors. (Figure 1.).

Fluoroscopically, it will be noted that the cecal walls have lost their suppleness and ability to expand. Although the cecum is usually not fixed in this disease, its mobility is diminished. As would be expected, the deformity is constant and no appreciable change is discernible after adequate anti-spasmodic medication. Golden[5] has pointed out that should the defect not be constant, considerable doubt is cast on the validity of that finding for spurious deformities may be caused by transient physiological spasm and incomplete filling. These pseudo-deformities are frequently encountered in barium enema examinations and repeated studies will often be needed before the true nature of the condition will be apparent.

Closely related to the inability of the cecum to expand during a barium enema examination is the observation that after evacuation of the enema, there is usually a failure of the cecum to collapse and empty itself. This is not the case in acute infection, but in the chronic state there was often no appreciable change in the appearance of the cecum on the films made before and after evacuation (Figure 2A and 2B). In most of the patients studied the cecal deformity remained largely unchanged after several courses of amebicides and after complete disappearance of the clinical signs and symptoms of the infection (Figure 3).

The normal action of the ileo-cecal valve during a barium enema examination is familiar to clinicians and roentgenologists. Usually the valve will not permit any barium to enter the ileum until the cecum has first become distended. This provides a definite stop to the flow of barium at the cecum. Often the ileum can be filled only after overfilling the colon and then



Figure 3: Gnarled, contracted cecal pouch in a patient who had amebiasis for approximately one year but who was clinically well at the time of this examination (left). Double contrast film of same patient six months later (right) reveals no appreciable change in the deformity.

The same deformity was found on a subsequent examination made one year after the patient was considered cured clinically. The cecal deformity is probably irreversible.

only after much manipulation and perseverence. The abnormal performance of the ileo-cecal valve is one of the most constant and striking findings in chronic amebic cecitis. This is evidenced by the spontaneous unintentional flooding of the terminal ileum with barium during a barium enema examination. As one attempts to fill the cecum completely, the observer finds that it does not distend and with no pause of the barium column at the ileo-cecal valve, the distal loops of ileum are immediately engorged with barium. In an effort to obtain double contrast films of the colon without the disturbing small bowel shadows, many of these examinations were repeated exercising great care to prevent filling of the ileum, but in each instance there was a free and unhesitating flow of barium into the small bowel. Obviously, the ileo-cecal valve had become deformed and insufficient (Figures 1, 2, and 3).

No attempt will be made to differentiate the changes in the cecum due to entameba histolytica. It is certainly true that there are a number of conditions in which the differentiation may at times be impossible (Figure 4.). Cancer, tuberculosis and non-specific inflammatory disease of the cecum and appendix, to name but a few, will occasionally be difficult to exclude from the diagnosis. In those instances, it will only be when the information and data from all sources are pooled and carefully evaluated, that the clinician can hope to arrive at the correct diagnosis. However, it is believed that many cases of amebiasis which formerly went unrecognized will be discovered if we can alert ourselves to these cecal changes which when found should lead to the positive methods of diagnosis and treatment.

CONCLUSIONS

1. The cecum is most frequently affected in chronic amebic colitis and changes of maximum intensity are found in this area.
2. The x-ray findings consist of a contracted, shortened, deformed cecum which distends

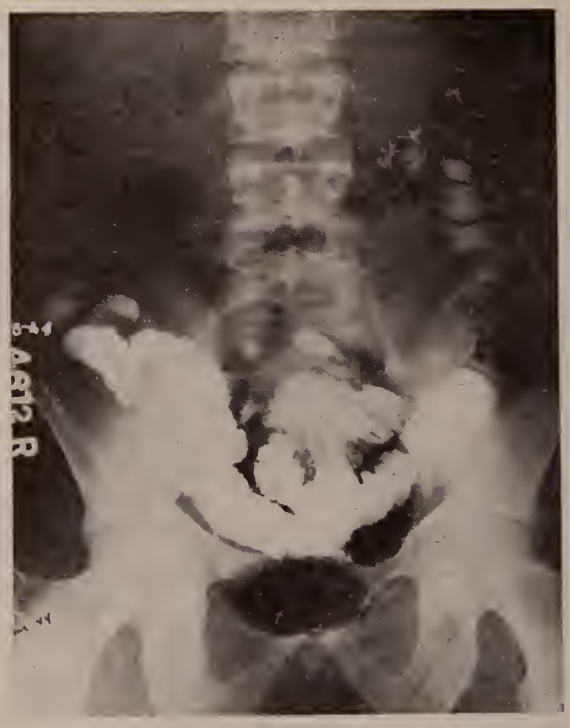


Figure 4: Double contrast enema showing the narrowed and deformed cecum. The ascending colon is constricted. The roentgenological criteria of a benign lesion are present but clinically it was thought to be malignant. There was a rapid loss of weight, bloody diarrhea, severe anemia and weakness. A mass was palpable in the right lower quadrant. Two stool examinations and one proctoscopic examination were negative for ameba. At operation a large amebic granuloma was found.

and contracts poorly. The ileo-cecal valve is insufficient.

3. With chronic infection the cecal alterations are probably irreversible which make is possible to detect previously undiagnosed disease.
4. Although not primarily diagnostic, the roentgen findings in the cecum are sufficiently characteristic to suggest the diagnosis and thereby lead to positive methods of diagnosis and treatment.

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DISCUSSION

Dr. T. J. Wachowski, Chicago: In looking over these cases you found ulcerations elsewhere than the cecum. Did you find any significance in that submucosal ulceration sign talked of? You had one slide that seemed to have it on the left-hand side.

Dr. Raymond B. White, Chicago: There were several that showed that fine serration.

Dr. Wachowski: Not the straight serration but the submucosal.

Dr. White: I don't think they had the deep ulceration so that I could detect the abscess pockets.

Dr. Wachowski: That is right.

Dr. White: These were practically all arrested. They were clinically well but they were evacuated back to this country chiefly because of the persistence of the cecal deformity. One of them did have a recurrence in our hospital. As to the question whether they are arrested, I think the expert opinion is that they are not arrested. Actually, many of these men carry the cysts and are always potential public health hazards.

Dr. Perry Gentz (Evanston): If I understood the essayist correctly, those deformities are permanent, are they not?

Dr. Raymond B. White (Chicago): They seem to be permanent. Some of these were followed up to a year's time, at which time I could see no change when compared with the films they had made originally overseas and films we had made at the end of our observation.

I think the analogy to the duodenal bulb is an apt one. We have all followed the chronic duodenal ulcer. The crater disappears but the deformity remains. We follow the person along and find they have no clinical symptoms but there is still a marked deformity of the bulb. I think the changes are quite similar here in the cecum.

THE USE OF ASCORBIC ACID ON INFLAMED TISSUE

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The use of vitamin C for the treatment of inflamed nasal mucous membrane is suggested. The customary therapy of inflamed nasal tissue has definite disadvantages. Primarily, therapeutic agents causing shrinkage are unphysiological. Secondly, no replacement of the tissue loss of vitamin C is effected.

As a further requirement for effective treatment it is necessary to maintain the hydrogen-ion consentration of the agent to be used at the physiological level.

The solution suggested here for the purpose of restoring vitamin C to depleted nasal tissue must

be isotonic and is prepared by neutralizing vitamin C until a Ph. of 6.8 is effected. A stabilizing buffer consisting of ½% sulphite-bisulphite was developed by Warren Tauber. Applications administered to the nasal mucous membrane resulted in a sensation of less irritation. The nasal tissue appears less hyperaemic within 5 or 10 minutes after the local application either with a spray or by means of 10 to 20 drops. ½ hourly or hourly applications were advised.

Experimental work by J. Yudkin[1] demonstrated a decrease in the incidence and duration of colds during ascorbic acid saturation. Further work by Knight and Stanley[2] indicated that ascorbic acid caused the inactivation of the influenza virus in tests with chick embryoes and mice. King and associates[3] demonstrated that the injection of toxins into tissue caused a marked depletion of vitamin C; at which time the tissue was subject to more injury than when the vitamin C reserve was normal. Similar observations with regards to hemolytic streptococci were made by Kaiser and Slavin[4]. Further contributions have been made by Bartlett, Jones and Ryan[5].

SUMMARY

1 — A new method for the treatment of inflamed nasal tissue has been described which consists of using a vitamin C solution locally in order to restore the normal physiology of the tissue.

2 — Other methods of local treatment give no consideration to this principle.

3 — No ill effects have been noted and some relief is noticeable almost immediately.

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MORE CANCERS FOUND AT DETECTION CENTERS THAN EXPECTED

A nine-months' survey of cancer detection centers in one state shows that 10 to 15 times as many cancers are geing discovered in male examinees, and twice as many in females, as would be expected from the general cancer prevalence rates by sex and age. These facts are revealed in a report by Howard W. Jones Jr., M.D., and W. Ross Cameron, M.D., Baltimore, in the December 13 issue of *The Journal of the American Medical Association.*

The two doctors state that from November 1, 1946 to July 31, 1947 a total of 1,709 persons were examined in cancer detection centers in Maryland, 336 being men and 1,373 women. By means of the expected prevalence and detectability rates only 0.56 case of cancer would have been anticipated in the male and 4.9 cases in the female examinees. Actually eight cancers were found among the men and nine among the women.

Although a cancer detection center represents a case finding clinic to which only persons who are free from cancer symptoms are supposed to be admitted for examination, the writers suggest that a high proportion of the patients come to such centers because of minor complaints or because of the occurrence of cancer in their immediate families. They are therefore not a true cross section of the population as a whole.

"An incidental, but important finding," the doctors also write, "was that 36 per cent of men and 51 per cent of women examinees were referred to their physician because medical or surgical conditions other than cancer were discovered."

Case Report

AN ALLEGED FOOD POISONING BY THE SALMONELLA GROUP

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The frequency of food poisoning by bacterial invasion, is greater than that induced by metallic poisons. The former is usually caused by unhygienic working conditions or direct contamination from an infected individual handling the food. This is evidenced in the source of mass poisonings with hemolytic streptococcus or staphylococcus.

In a small town in Ohio, a number of illnesses and a few deaths occurred after the eating of frozen sweetbreads. All other foods were eliminated in checking the menu for a possible source of poisoning. Three deaths occurred and a law suit was started against the chain grocery store for selling sweetbreads contaminated by a Salmonella type of bacteria.

The onset of illness was very sudden. The incubation period of the Salmonella type of food poisoning, is from 7 to 48 hours. From the symptoms and history obtained, it appeared that this outbreak was not a bacterial poisoning, but possibly one induced by an inorganic substance; such as, sodium flouride, arsenic or bichloride of mercury.

The plaintiff's attorney attempted to establish, that although the cooking of the sweetbreads would undoubtedly destroy the Salmonella bacteria, it would not destroy the toxin formed by this bacteria and that it was this toxin which caused the illnesses and deaths.

Regarding the presence of toxins in food products following contamination by the Salmonella group, Savage and White[1] state: "endotoxins are formed, which are destroyed at one-hundred degrees centigrade. Introduced parenterally (subcutaneous or intraperitoneal injection) these toxins are more potent, but their effect is still very uncertain. These heated toxins cause acute gastro-intestinal irritation with marked diarrhea and vomiting with quick recovery after elimination of the poison. In all, the symptoms are those of acute gastro-intestinal irritant acting quickly, two to four hours, with short duration and almost invariable recovery."

Since the salient question was whether or not the toxin formed by the Salmonella group would be destroyed, I conducted experiments in vivo, combining the routine of the cook at the restaurant.

The cook in an interview, stated as follows:

"At about 8:00 A.M., of the 19th of December, I took the sweetbreads out of the icebox and they were still frozen very hard. I left the bucket out for about one-half hour so they would thaw and then I dumped them in an aluminum dishpan filled with fresh cold water. I just got the water from the faucet at the dish tubs. I left them in this water for about one hour, then I drained this water off and put more water in the pan and then left them in the second water for another half hour. I then drained the water off and breaded the sweetbreads. I fried the sweetbreads in fresh pure lard. The sweetbreads looked very good, I couldn't see a thing wrong with them. They were whole, about the size of the palm of one's hand, about three fourths of an inch thick. There were about twenty servings altogether so we served one to a customer.

I served them myself. The sweetbreads had no peculiar odor. The gravy that was served was made from roast beef stock, cooked the day before. I put this broth in a glass dish, kept it in the icebox until used. The broth was drained and mixed with flour. The flour was purchased in twenty-four pound bags and kept in a can on the shelf at the end of the stove with a lid on it."

In the first experiment, 1½ pounds of sweetbreads were injected with Salmonella aertrycke and 1½ pounds injected with Salmonella enteritidis. After 5 days the sweetbreads had such a foul odor that the experiment was discontinued, on the premise that no one would cook sweetbreads having such an obnoxious odor.

Tanner[2] states that "Koser[3] inoculated various foods and stored them at temperatures of 37° C., 20° and 6 to 9° C. (98.6° F., and 68.2° F., and 48.2°F.). These inoculated foods were examined regularly for changes in physical appearance, and bacteriologically. Koser's result showed that the members of the Salmonella group of bacteria may develop in foodstuffs without alteration in either appearance, odor and probably taste."

In the second experiment, 50 grams of the sweetbreads were inoculated with Salmonella enteritidis by inserting a loop of the organisms. Another 50 grams of sweetbreads had a loopful of the organisms spread on the outside, and both specimens were allowed to incubate for 3 days. The same procedure was conducted with Salmonella aertrycke. After an incubation period of 3 days, these samples were allowed to freeze for 5 days, following which cultures were taken. It was found that freezing failed to destroy the Salmonella enteritidis and the Salmonella aertrycke organisms. The 4 samples were fried in Crisco at a temperature of 120° C., for 15 minutes. The temperature on the inside of the sweetbreads, the last 5 minutes, varied from 88° to 97°. These sweetbreads were then placed in an oven for 1 hour at 140° C., and cultures made from each of the 4 samples. The cultures were negative for Salmonella organisms. These sweetbreads were subsequently fed to 4 starved rats which had been without food for 18 hours, in separate cages. No ill effects were noted, indicating the absence of toxins.

A third experiment was carried out, similar to experiment No. 2, in which a loopful of Salmonella aertrycke and a loopful of Salmonella enteritidis were injected into 2 samples of sweetbreads. These same organisms were also spread on the outside of two other samples. These were frozen for 5 days, after which they were thawed out and cultures again made. It was found that the freezing failed to destroy the Salmonella aertrycke or the Salmonella enteritidis organisms. The sweetbreads were fried in Crisco for 15 minutes, at a temperature of 120° C., after which they were placed in an oven for 1 hour. Cultures taken from the sweetbreads were negative for bacterial growth.

Thirty-four grams of the sweetbreads treated on the outside with Salmonella enteritidis and heated as described above, were combined with sterile water, crushed with a sterile pestle, and filtered into a sterile graduate, making up to 75 cc. At the same time, 76.5 grams of the sweetbreads that had been injected inside with Salmonella enteritidis were similarly treated and extracted, also making up to 75 cc. Four healthy rabbits, 1 weighing 4½ pounds; 1 weighing 4¼ pounds; another 3¼ pounds; and the fourth 4½ pounds respectively, were each given 10 cc. of the above extracts by mouth. There was no sign of irritation of the bowel or stomach at any time, in any of the animals. The rabbits were watched for 5 days with no untoward reaction occurring.

An investigation, to trace the source of poisoning in this case, revealed that an exterminator, a few days previous to this outbreak, had dusted a large amount of fluoride on the shelves and over the stove of the restaurant kitchen. In some places little piles of fluoride a half inch in depth were found. During the preparation and cooking of the sweetbreads, it was possible that some of the fluoride was accidentally incorporated with the sweetbreads.

An autopsy was performed on one of the death cases, but no chemical or bacteriological examination was made.

It is demonstrated that admitting the presence of toxins during the growth of Salmonella or-

ganisms in food, they were destroyed during the process of cooking and oven heating.

In animal experiments, toxins heated at increased cooking temperatures of 120° C., and oven temperatures of 140° C., were found innocuous as to gastro-intestinal irritation.

It is shown that freezing failed to destroy the Salmonella enteritidis and the Salmonella aertrycke. Cultures were negative for Salmonella organisms after cooking.

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A COMPLETE PELVIC FLOOR LACERATION SIX AND ONE-HALF MONTHS' PREGNANCY

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History of Patient. — Mrs. B. Age 32 years. Married six years. Seen February 17, 1943 through the courtesy of Dr. Volini. Patient had one child three years ago, girl, said to have weighed a little over 12 pounds, died shortly after birth. Patient suffered a complete laceration which extended up the rectum. Effort at repair was said to have been made, followed by infection and early removal of stitches. Recto vaginal fistula resulted. Gas and feces found their way into the vagina, which was very annoying to patient. Walking and sitting were painful, and something seemed to be prominently in the way. Alternate attacks of diarrhoea and constipation occurred. Last menstruation began July 25, 1942. Patient had been greatly disturbed because of her previous experience and present condition.

Present Condition. — A sturdy, well nourished, muscular young housewife is seen suffering from great fear and apprehension, although appearing healthy and virile. She was estimated to be about six and one-half months pregnant, bringing her estimated date of confinement about May 1st, 1943. General condition negative except a slight mitral regurgitation with good compensation. Vaginal examination showed a gaping vulva, a slightly soiled vagina with posterior vaginal wall lying against the rectal wall, with evidence of scar tissue running from a dimple on one side to a like dimple on the other, marking the ends of the sphincter ani muscle. The scar tissue running across the lower edge of the recto vaginal septum limited the contraction and dilatation of the anal outlet moderately. The skin edges of the former perineal skin were widely separated and scar tissue was marked. A sound introduced into the rectum easily found an opening one-half inch up the rectum and a little to the left of the median line, and extending upward, forward and slightly to the right to emerge in what seemed to be a shallow fissure in the vagina. This fissure permitted fecal matter and gas to escape into the vagina. Bladder, vagina and cervix were held well up.

Psychology. — Patient was quite disturbed over the loss of previous baby and the possible loss of this one, or as it seemed to her, the probable loss of this one. She had lost all courage and feared, with labor pending and this new disability, that she might lose her own life. She was greatly depressed over the escape of feces and gas, and had little hope of a successful repair. She lacked the poise and confidence with which one should face a prospective confinement, and was apprehensive about the future and her ability to hold her husband, with the distressing conditions present. With delivery two and one-half months away, she needed an inspiration of confidence. We were able to have her accept at least temporarily the almost certainty of a live baby of whatever size presented, and an almost certainty of pelvic floor support and ano rectal functioning after repair. To this we were able to get her to adhere, with only slight relapses, due to her faith in her family physician.

The Plan for Delivery. —

We could let her go to term —

(a) If the x-ray and measurements and estimate of size of the baby indicated the possibility of a normal delivery, she could be allowed to go into labor.

(b) Having lost one large baby, if this baby seemed of like size, a Caesarean section would be chosen.

(c) Because of a contaminating rectum, a Caesarean section would be chosen if a normal non forceps delivery was not thought probable, or if labor was tried and much resistance developed. In this way we could assure her of a safe delivery.

The Plan of Repair. —

1. We could repair at once if Caesarean section was to be performed. This is to be rejected on the ground of unnecessary operating during pregnancy and possibly lessening our resources for delivery if a moderate sized child got under way, when not only would the repair interfere with delivery, but so early a delivery might do serious damage to the repair.

2. We could plan on repair at the time of delivery as a measure of economy and completeness. This is to be rejected on the ground that a delivery could not be so normal as to make so complicated an operation as pelvic floor rebuilding vaginal and rectal reconstruction advisable, as an additional gynecological operation, especially as many obstetrical clinics do not undertake to maintain a surgically clean vaginal and vulvar field before, during and after delivery.

3. We could complete the delivery, secure involution, and at a favorable time thereafter do a pelvic floor reconstruction under strict surgical management. This seemed advisable.

4. There are those who advise the postponement of operative procedures until the period of childbrearing is past. She had been thus advised. To this it should be said that there is too much grief, too much physical distress, too much mental disturbance, too much danger of connubial unhappiness, too much danger of additional pelvic floor impairment to make this advisable. This is true of damaging incomplete tears, and has double force when applied to complete tears with fecal incontinence.

The patient entered the hospital on May 4th, 1943. The measurements were ample, the child, while of good size, was not extraordinary. The x-ray indicated adequate size of pelvis. A normal labor and delivery was predicted and advised. Delivery proceeded without incident except the training and bent of the resident was so strong for episiotomy that just previous to my arrival he did a left oblique for fear the head would escape without this necessary (?) procedure in a complete tear. All a result of erroneous teaching.

After delivery, the isthmus of scar tissue resulting from the previous repair was cut up to the fistula and irregularities smoothed. After this the patient complained less from gas and fecal escape, probably due to a more direct outlet.

Recovery was uneventful except that rules prevent douches being given in the obstetrical department, a vicious ruling, we believe; so the vagina was considerably contaminated and on that account the patient was released rather early in order to have the benefit of douches at home.

On July 1, 1943, a checkup at the office found wound healing complete, moderate hernia of the bladder (cysto colpocele) presenting, uterus very small, (gestation hyper-involution), and genital tract clean except slight vulvar soiling. Patient complained of a slight bladder irritation and at times incontinence, due to moderate extrusion. Operation not advised at this time as the baby was doing well on breast feeding and a change to bottle feeding was not thought desirable during the hot months.

September 21, 1943. Patient visited the office in response to an advisory letter. She complained a little more of the bladder, and had developed a bearing down feeling, and a backache. Herniation of bladder a little more marked, slight vaginal and rectal herniation had appeared. The vulvar opening was widely separated, showing a large hernial opening through the pelvic floor, to be filled as the tissues become stretched and secondary impairments took place. The uterus had developed to normal functioning size and was slightly inclined to sag.

The patient had become somewhat depressed, was apprehensive about her survival, dreaded to leave the baby, to which she was very much devoted, but said that she and her husband were both grateful for the letter because she had been worrying about the necessity of an interview, but could not bring herself to the point of acting. She failed to keep her hospital appointment which was September 28, 1943. Patient was to enter the hospital for pelvic floor reconstruction September 29, but developed a respiratory infection which delayed her operation to Oct. 11, 1943.

The anatomy and surgical anatomy connected with this case takes into account all the pelvic

floor construction that permits of the assumption of the upright position with organs maintained in place. The surgical pathology and pathological anatomy of this case include all that has happened to break down this support, to render the sphincters ineffectual, the rectum incontinent and permits herniation of the bladder, rectum, vagina, and eventually the uterus, to take place. Reconstruction of the pelvic floor includes all procedures that will put these impaired structures back to a perfect functioning condition, or in the case of some structures, such as the uterus, removal when they are pathological or cannot be made to conform to the plan of support.

This reconstruction does not mean the making of a perineal wedge or a perineorrhaphy, or colporrhaphies, or simply narrowing the vagina, or closing the vagina or advancing the bladder on the uterus, or taking out the uterus or suspending the uterus, or an interposition operation, or making an artificial anus through the abdominal wall (as I have seen).

Pelvic Floor Engineering. — Consideration of pelvic floor construction for function and support, of pelvic floor preservation, of pelvic floor impairment; 1st, the primary injuries and the secondary developments, of the methods and combination of procedures necessary to complete restoration of pelvic floor support and to urinary, genital and alimentary tract functioning, is rightfully considered Pelvic Floor Engineering.

As applied to our case, the pelvic floor muscles have been left wide apart. The sphincter ani externus and internus have been torn through. The sphincter recti (puborectalis) has been torn. The pelvic floor fascias, the bladder and rectal fascias have been injured. Secondary impairments, of herniation of the bladder and rectum have taken place. These structures are more or less pinched. The posterior urethral wall is pulled upon, stretching the sphincter urethrea, causing incontinence at times.

The uterus remains in place, sufficiently so as to require no operation to keep it at an angle to the vagina.

A hernioplastic operation on the anterior vaginal wall to hold the bladder in position and prevent the urethral sphincter from its present incapacity.

The anterior or vaginal flap of the recto vaginal septum should be lifted far enough to reach pelvic fascias and widely separated pelvic floor muscles. These should be reunited far enough forward to back up the bladder, hold the lower end of the vagina forward to restore the normal oblique position and direction upward and backward. The pelvic floor muscles should be sutured far enough backward that they may snugly surround the rectum, to which they should be attached to prevent rectal herniation.

The incomplete rectal wall should now be drawn down with a purse string suture and the retracted ends of the sphincter should be picked up and brought together in front of the rectum and attached to the rectum 5/8 inch above the rectal edge and to the restored pelvic floor muscles.

Lastly a purse string suture should be taken in the vaginal flap after being properly shortened, or if in great excess a V shaped excision may be made.

Finally, the superficial structures should be approximated from repaired rectum forward, uniting superficial muscles, fascia and skin as far forward as the junction of the vestibule with the vagina.

Now that the engineering problem of reconstruction is worked out, what advice is necessary in regard to future child-bearing? We do not advise against it. In this case, vaginal delivery may be advised, doing a median muscle separation with immediate repair. In other cases where inelastic tissue remains, much scar tissue, and a smal pelvis remains to be considered, a Caesarean section is advisable.

The apprehensiveness of the patient, the highly nervous condition brought about by the contemplation of her former unusually severe labor, her loss of the first baby (said to be twelve pounds), non-survival of infant, and her knowledge of an abnormal condition was a marked factor in her treatment, but recovery was satisfactory.



News of the State

PERSONALS · COMING EVENTS · MARRIAGES · DEATHS

COOK COUNTY

Dr. Hedge Member of Evanston Health Board.—Dr. Harry H. Hedge was recently appointed by Mayor Samuel Ingraham of Evanston as a member of the local board of health. Three members make up the board, the mayor, Dr. Winston Tucker, health commissioner, and Dr. Hedge. The new appointment was made on the recommendation of the North Suburban Branch of the Chicago Medical Society. Dr. William G. Alexander retired from the board after twenty-four years of service.

Personal.—Dr. Louis R. Limarzi, Department of Internal Medicine, University of Illinois College of Medicine, has been appointed to the Editorial Board of the Acta Haematologica, Internal Journal of Hematology.

The journal will publish papers in English, French, and German to stimulate international cooperation between hematologists and physicians interested in blood disorders. The journal has assumed the task of giving a cross-section of hematological research and practical hematology in all countries, in Europe, and in North America and South America as well. Publisher: S. Karger, Basel, Switzerland. Editors: E. Meulengracht (Copenhagen); Rohr (Zurich) and Rosenow (New York).

Branch Meeting.—"Do's and Don'ts" in certain conditions formed the theme of the meeting of the North Shore Branch of the Chicago Medical Society at the Edgewater Beach Hotel, January 6. Dr. Knowlton Barber, assistant professor of urology, Northwestern University Medical School, presented the aspects of "Genito-Urinary Diseases"; Dr. John Van Prohaska, assistant professor of surgery, University of Illinois College of Medicine, "Gastro-Intestinal Diseases"; and Dr. John Norcross, associate in bone and joint surgery, Northwestern University, "Fractures".

First Holmes Lecture.—Dr. E. V. L. Brown, Rush clinical professor emeritus of ophthalmology, University of Illinois College of Medicine, gave the first presentation of the Rudolph Wieser Holmes and Maria Baxter Holmes Fund, January 30, on "Edward L. Holmes: Pioneer, Chicago Eye Doctor." The lecture was presented for a joint meeting of the Institute of Medicine of Chicago, the Chicago Ophthalmological Society, and the Society of Medical History of Chicago.

Symposium on Tuberculosis.—"The Place of Excision of the Lung in the Treatment of Pulmonary Tuberculosis" was the theme of a meeting of the Illinois Chapter of the American College of Chest Physicians in Chicago, November 7. The speakers, all of Chicago, were Dr. Edwin R. Levine, "Indications for Excision"; Dr. Paul H. Holinger, "The Tuberculous Lesion of the Bronchus as it Affects Excision"; Dr. Jerome R. Head, "Problems of the Surgical Procedure"; and Dr. George W. Holmes, "Care of the Patient Pre-operatively and Post-operatively". Dr. Minas Joannides conducted the discussion.

The Illinois Chapter met jointly with the Chicago Tuberculosis Society on January 8 to discuss "Experience with Streptomycin in Treatment of Tuberculosis." The following program was presented: Dr. Abraham A. Levinson, "Tuberculous Meningitis and Miliary Tuberculosis"; Dr. Albert H. Andrews, "Tuberculosis of Larynx and Bronchi"; Dr. Charles K. Petter, "Acute Pneumonic Tuberculosis"; Dr. S. Allen Mackler, "Surigical Treatment of Pulmonary Tuberculosis"; Dr. Frederick Lloyd, "Tuberculosis of Genito Urinary System"; and Drs. Felix Gansey, Edward Miller and Bradley Carr discussed "Orthopedic Tuberculosis."

Annual Meeting of Board of Governors.—At the annual meeting of the Board of Governors of the Institute of Medicine of Chicago the following officers were elected to serve in 1948: Dr. William F. Petersen, chairman of the Board of Governors; Dr. Henry T. Ricketts, vice chairman of the Board; Dr. Dallas B. Phemister, president; Dr. Fred C. Koch, vice president; Dr. George H. Coleman, secretary; Dr. Grant H. Laing, treasurer. At the annual meeting of the Institute, held in the Palmer House on December 2, citizen fellowship was conferred on Martin H. Kennelly, Mayor of the City of Chicago, and on Chauncey B. Borland, long-time trustee of St. Luke's Hospital. Mayor Kennelly was presented

by Dr. Ernest E. Irons and Mr. Borland by Dr. Selim W. McArthur.

The Christian Fenger Lecture.—Dr. E. V. Cowdry, professor of anatomy, Washington University School of Medicine, presented the twelfth Fenger Lecture of the Institute of Medicine at the Palmer House, Monday evening, January 12. Dr. Cowdry, who is also director of research, Barnard Free Skin and Cancer Hospital, St. Louis, discussed "Expectations in Cancer Research."

Clarence Balke Awarded Perkin Medal.—Dr. Clarence W. Balke, Chicago, has been honored for his pioneer research in connection with tantulum, now widely used in surgery. He will receive the 1948 Perkin medal of the American section of the Society of Chemical Industry during its annual meeting. Dr Balke is emeritus-director of research of the Fansteel Metallurgical Corp. Tantulum, a light metal, is used medically to provide artificial jawbones, ears and noses, to repair skull injuries and to sew skin.

Wellcome Medal Goes to Dr. Urist.—The Wellcome Medal and a five hundred dollar award were presented to Dr. Marshall R. Urist of the University of Chicago, November 14. The prizes acknowledged Dr. Urist's research work in the Army Medical Corps on "Battle-Incurred Compound Fractures in the Region of the Hip Joint."

Cancer Prevention Clinic Opened for Men.—The first cancer prevention clinic for men in Illinois was opened January 13 in Henrotin Hospital by the cancer prevention center of Chicago. The new clinic will be available to patients Tuesday evenings on the basis of appointments made with the center whose telephone number is Whitehall 7838. No treatments will be given and no examinations will be made for persons already under medical care. A similar clinic for women, opened four and one-half years ago at Women's and Children's Hospital, has examined 6,000 women at the rate of 250 a month, three evenings a week, since it was organized, according to Mrs. Arthur Edison, president of the cancer prevention center. The clinic charges patients ten dollars to cover laboratory work costs, but accepts without charge those who are unable to pay.

University News.—Two gifts of $100,000 each to further cancer research at the University of Chicago were announced December 2. The gifts were from Mr. and Mrs. Charles H. Worcester of Chicago who in 1944 donated $400,000 for the same purpose.

Branch Offices Recommended in City Health Department.—The establishment of twenty branch offices throughout the city of Chicago, by the department of health, is under consideration according to newspaper reports. Studies will be begun early this year and a "pilot plant" division office set up. Further reorganization of the city health department includes the creation of four new divisions, two to be concerned with mental hygiene and with geriatrics and two, with health education, information and nutrition.

Physician Buys Land Mark.—Dr. Charles W. Olson, Chicago, recently purchased one of the early farm homes of John Brown, famed abolitionist, and plans to restore it as a historical shrine. Newspaper reports indicate that the farm of ninety-nine acres near Titusville, Pa., was Brown's home from 1826 to 1835. Dr. Olson is also a collector of historical items on Abraham Lincoln.

Research and Educational Hospitals Changes Name.—The official name of the University institution, "Research and Educational Hospitals", Chicago, has been changed to University of Illinois Hospitals, in accordance with recent action of the board of trustees. The official change in name will take effect following the clearance of legal and contractual issues. The name "Research and Educational Hospitals" is fixed by law and by the agreement between the State Department of Public Welfare and the University. The change in title may require a revision of the agreement between the Department of Public Welfare and the University and an amendment of the law authorizing the agreement. The hospitals were established in 1919 by agreement between the State Department of Public Welfare and the University and were known as the "University Clinical Institute." The buildings were constructed by the State of Illinois for the Department of Public Welfare. Later, the name was changed to the "Research and Educational Hospitals." In 1931 the agreement with the Department of Public Welfare was incorporated into law by an act of the General Assembly. In subsequent legislation, the term "Research and Educational Hospitals" was continued in use. Prior to 1941, the hospitals were operated jointly with the University of Illinois providing the professional staff and the Department of Public Welfare providing all other personnel. The funds for the operation of the hospitals were appropriated to the Department. In 1941, the University and the Department agreed that the operation of the hospitals should be transferred fully to the University. The General Assembly concurred in the agreement, and since that time the appropriations have been made to the University. The Illinois Neuropsychiatric Institute, the Illinois Eye and Ear Infirmary, and the Institute for Juvenile Research are still operated jointly under the revised agreement.

Personal.—Dr. John B. O'Donoghue, a member of the staff of Mercy Hospital for twenty-eight years, has been named head of the surgical staff, it was reported Decembr 11.

Society News.—Dr. Andrew L. Banyai addressed the Chicago Tuberculosis Society December 11, "Differential Diagnostic Problems of Pulmonary Tuberculosis" and Dr. Edwin R. Levine on "When Can a Patient be Considered Cured?" Discussants of both papers were Dr. J. J. Mendelsohn, Dr. Louis C. Morris, Dr. Julius Novak, and Dr. Frank Fremmel. — Miss Edna Nicholson, director, The Central Service for the Chronically Ill, addressed the Chicago Council on Community Nursing", December1, on "Nurs-

ing Needs for the Chronically Ill." — The Chicago Society of Internal Medicine was addressed December 15 by the following physicians: Doctors Donald J. Kessler and Laurence E. Hines on "Hazards of Thiocyanate Therapy in Hypertension"; Alva A. Knight and Jeanne Miller on "Comparative Studies on the Iodine Absorption of Anayodin, Chiniofin, Diodoquin, and Vioform in Man"; M. A. Spellberg and Simon Zivin on "Amebic Colitis, Hepatitis and Hepatic Abscess in Veterans of World War II"; and Hiram T. Langston on "Pleuropulmonary Complications of Amebiasas."

New Space for Animals.—The second floor of Rush Medical building at Presbyterian hospital has been loaned to the Chicago Professional Colleges for housing animals. The building is located on the south side of Harrison street.

The space has been made available for an indefinite period without rent. The University will pay all expenses of remodeling, and will meet operation and maintenance expenses of the space occupied.

The University board of trustees has authorized Comptroller Lloyd Morey to negotiate a lease with Presbyterian hospital for the space which is needed. The board has also authorized an appropriation of $18,000 for remodeling and the purchase of equipment. The estimated remodeling cost is $7,900 for animal cages and installation, and $10,000 for other remodeling and improvement.

The board also has granted a contract to the Mutual Contracting Company for the remodeling on a cost-plus basis with a guaranteed maximum of $18,000.

The temporary facilities will help relieve an acute space shortage in the animal hospital. Mr. Arthur L. Hesse has announced that 60 dogs will be housed in the building. The facilities at Rush will be remodeled to contain four laboratories and small animal cages.

KANE COUNTY

Bequests to Copley Hospital.—The Copley Hospital, Aurora, will receive $1,350,000 from the estate of Ira C. Copely, publisher and utility executive, under terms of his will recently filed in Kane County Probate Court. Mr. Copley died November 2 in the Copley Hospital, which was built and largely maintained by his donations.

LAKE COUNTY

John Palmer Honored.—The Lake County Medical Society held a testimonial dinner at the Karcher Hotel, November 30, in honor of Dr. John M. Palmer, Waukegan, who has been practicing medicine in the county since he first opened offices in Grays Lake in 1901 following his graduation at the University of Illinois College of Medicine. Dr. Palmer moved to Waukegan in 1919 following service in World War I. The dinner marked his retirement from active practice, November 1. Among the speakers were Dr. John B. Youmans, Dean, University of Illinois College of Medicine, and Dr. George B. Callahan, Waukegan, toastmaster at the banquet.

New Medical Director.— Dr. John D. Foley, Waukegan, was appointed medical director and chief of staff of Lake County General Hospital, November 12, succeeding Dr. Louis F. Kompare. The appointment was effective December 1. Dr. Foley was medical director of the hospital prior to his service in World War II.

LAWRENCE COUNTY

Personal.—Dr. John R. Thompson, Bridgeport, on November 6, announced his candidacy for the Republican nomination for a seat in the lower house of the Illinois General Assembly.

LOGAN COUNTY

Society News.—"Trends in the Practice of Medicine" was discussed by Dr. Irving H. Neece, Decatur, President of the Illinois State Medical Society, at a joint meeting of the Lincoln Woman's Club and members of the Woman's Auxiliary to the Logan County Medical Society recently.

MACON COUNTY

New Officers.—Dr. Fred G. Ferguson assumed the presidency of the Macon County Medical Society at its January meeting. Dr. Vernon M. Long is the president-elect: Dr. Maurice D. Murfin, secretary; and Dr. Chester T. Johnson, treasurer. Among the speakers at the recent meeting of the society were Dr. C. Martin Wood, Dr. Irving H. Neece, President, Illinois State Medical Society, Dr. Dwight A. Pence, and Dr. Herbert J. Bavor. Dr. Lee O. Frech is delegate and Dr. Arthur F. Goodyear, alternate.

Personal.—Dr. Willard C. Smullen has been appointed as radiologist at St. Mary's Hospital succeeding Dr. Roger R. Lough. Dr. Smullen, who arrived in Decatur on December 7, is a graduate of Indiana University School of Medicine in 1939 and did special work in radiology before and during his forty months' army service. He came to St. Mary's after one year as senior resident in radiology and a second year as assistant radiologist to the four hospitals affiliated with Indiana University. Mrs. Smullen and their two children will join Dr. Smullen when a home is found.

Personal.—Dr. A. A. Adler has recently become a member of the Macon County Medical Society and is associated with Dr. C. Raimer Smith in general practice.

MADISON COUNTY

Personal.—Dr. C. E. Merkle, Alton, was recently made a fellow of the American College of Physicians.

Society News.—Dr. G. D. Royston, St. Louis, professor of clinical obstetrics and gynecology, Washington University School of Medicine, discussed "Premature Detachment of Placenta and Placenta Praevia" before the Madison County Medical Society at its meeting in Edwardsville, January 2.

MOULTRIE COUNTY

Personal.—Dr. Paul Swan, Elkville, has moved to Sullivan to become associated with Dr. J. F. Lawson.

RANDOLPH COUNTY

Society News.—Dr. Joseph A. Hardy Jr., St. Louis, discussed "Diagnosis and Treatment of Ante-Partum Hemorrhage" before the Six County Medical Society in Chester, January 22. The society includes the counties of Perry, Jackson, Randolph, Union, Franklin and Williamson.

ROCK ISLAND COUNTY

New Officers Chosen.—Dr. Bruce Collins, Rock Island, was elected president of the Rock Island County Medical Society at its meeting in the Lutheran Hospital, Moline, December 9. Other officers include Dr. Joseph Gustafson, Moline, secretary, and Dr. Phebe Pearsall, Moline, treasurer. Dr. Norbert C. Barwasser and Dr. John Layman, both of Moline, are vice presidents.

Society News.—The Iowa Illinois Central District Medical Association was addressed in Moline, November 19, by Dr. B. K. Ozanne, Moline, on "Use of Curare in Anesthesia" and Dr. Henry T. Ricketts, Chicago, "Newer Aspects of Diabetic Management". Dr. A. Walter Wise, Rock Island, introduced the speakers.

ST. CLAIR COUNTY

New Officers Chosen.—Dr. Willard Scrivner, Belleville, was recently installed as president of the St. Clair County Medical Society and Dr. Herman J. Nebel, East St. Louis, was named president-elect. other officers include Dr. J. E. Wheeler, Belleville, vice president; Dr. Owen Eisele, East St. Louis, secretary and editor of the society's publication; Dr. F. E. Bihss, East St. Louis, delegate to the Illinois State Medical Society; Dr. J. C. Soucy, Belleville, alternate delegate; and Dr. Harold McCann, East St. Louis, treasurer.

Southern Illinois Meeting.—The seventy-third annual meeting of the Southern Illinois Medical Association was held at the St. Clair Country Club, Belleville recently. Among the speakers were Doctors F. H. Falls, Michael H. Streicher and John T. Reynolds, all of Chicago. Dr. G. C. Otrich, Belleville, was the toastmaster at the banquet in the evening and Dr. Irving H. Neece, Decatur, President of the Illinois State Medical Society and Dr. W. I. Lewis, Herrin, then president of the organization, were the guest speakers. New officers of the Southern Illinois Medical Association include Dr. J. Beverly Moore, Benton, president; Dr. Gilbert H. Edwards, Pinckneyville, secretary-treasurer. Vice presidents are Dr. Robert Ferrell, Eldorado and Dr. W. H. Walton, Belleville. The 1948 meeting will be held in Benton.

VERMILION COUNTY

Personal.—Dr. C. E. Wilkinson announced his retirement from the active practice of medicine Sunday, December 1. Dr. Wilkinson was interested in the activities of the Illinois State Medical Society, serving as a delegate to the state society and later as a delegate to the American Medical Association. He was, for many years, a member of the Council of the State Medical Society and is a member of its Fifty Year Club.

Society Chooses Officers.—Dr. Arthur R. Brandenberger was chosen president of the Vermilion County Medical Society at a meeting in Danville succeeding Dr. K. H. Hammond, Hoopeston. Dr. Holland Williamson, secretary-treasurer of the society, was named vice president and Dr. Edward T. Baumgart was chosen secretary-treasurer. Dr. Warren B. Smith was reelected delegate to the Illinois State Medical Society. Dr. Samuel M. Feinberg, Chicago, was the principal speaker.

WOODFORD COUNTY

Personal.— Dr. Ernest B. Pearson, Eureka, announced on November 18 that he was planning to close his practice and return, with Mrs. Pearson, to the Belgian Congo where they served as medical missionaries for fifteen years before coming to Eureka. Dr. Pearson plans to take a refresher course in tropical diseases. Dr. Melvin I. Glick, Roanoke, plans to take over the practice of Dr. Pearson.

WILL COUNTY

Subnormal Hearing Project.—Examination of more than 21,000 children in Will County for subnormal hearing has been inaugurated under the supervision of the state-wide Advisory Committee on Hearing Conservation and Rehabilitation which includes five faculty members of the Chicago Professional Colleges.

Representatives of 10 organizations and units throughout the state, including the University of Illinois, are cooperating in the program which will continue for approximately eight months. Group and individual audiometric examinations will be administrated in all schools in the county, located southwest of Chicago.

All children found to have sub-normal hearing will be directed to general physicians and otological specialists for care. Children who require specialized attention in the form of hearing aid fitting, auditory training, and lip reading will be served through the educational agencies of Will County.

The program for pilot hearing conservation and rehabilition has been organized to also provide continous follow-up care. It will provide educational and vocational guidance for many years after the initial procedures have been completed.

The unique project will employ methods of case finding and will structure a clinical re-educational service program. It will serve as a model for future programs in other counties of the state.

Faculty members of the University's department of otolaryngology participated in the organization of the Committee on Hearing Conservation and Rehabilitation, an advisory group to the Commission for Handicapped Children. The committee includes representatives of all major public and private agencies in the state whose present program involves the education, clinical service, and guidance of the hearing handicapped.

Faculty members who have been named to the committee are Drs. Jean L. Utley, Herbert Koepp

Baker, Arnold A. Grossman, and Francis L. Lederer, and Miss Jane Irvin. They have already contributed substantially to the program of the committee in the definition of policy, projection of programs, and the organization of services.

Dr. Utley and Miss Irvine have been placed in charge of the technical details of the Will County project, and will train audiometric technicians and other conservationists and educators Dr. Utley also will direct the research aspects of the program.

The program will be conducted with the active cooperation and support of the Will County Department of Health, County Superintendent of Schools, Superintendent of Joliet Schools, and the Will County Medical Society.

The UI department of speech on the Urbana campus and the Illinois Eye and Ear Infirmary, operated jointly by the University of Illinois and the State Department of Public Welfare, are also represented on the advisory committee.

Other agencies include Northwestern University, Chicago Hearing Society, State Department of Public Instruction, State Department of Public Health, Illinois Teachers for the Deaf, Division of Services for Crippled Children, and the Illinois State Normal University.

GENERAL

Physicians Honored.—At the seventy-first annual meeting of the North Central Illinois Medical Association in Peoria recently, honorary life memberships were given to Dr. Frank Potts, Lacon; Dr. Wendall Potter, Geneseo; Dr. James A. Geen, Utica; and Dr. A. C. Everhart, Buda. Dr. Walter Alvarez, professor of medicine, University of Minnesota, discussed "Tired Men." Officers chosen at this meeting included Dr. M. A. Nix, Princeton, president; Dr. Charles Sneller, Peoria, vice president; and Dr. George Dicus, Streator, was reelected secretary treasurer, a position he has held for more than forty-five years.

Michael Reese Hospital Postgraduate School.—"Recent Advances in Pediatrics" will be the theme of a postgraduate course at Michael Reese Hospital in May. The course has been divided into two sections. The first, May 3-8, requiring full time, will be devoted to "The Full-Term and Premature Infant in Health and Disease." The second section, May 10-15, also full time, will cover "Diagnostic and Therapeutic Measures in General Pediatrics." Tuition is fifty dollars for each section, but registration will be accepted for either or both. The size of the class is limited. For further information and registration, communicate with Dr. Samuel Soskin, Dean, Michael Reese Hospital Postgraduate School, 29th Street and Ellis Avenue, Chicago 16.

Midwestern Meeting on Physical Medicine.—The Midwestern Sectional Meeting and Seminar of the American Congress of Physical Medicine will be held at the Veterans Administration Hospital, Hines, February 26-27, 1948. Dr. K. A. Carroll, manager of the hospital, will give the address of welcome and Dr. Louis B. Newman, chief of the physical medicine rehabilitation service there, the orientation. The following speakers will participate in a seminar on spinal cord injuries: Drs. Loyal Davis, Lewis J. Pollock, Knowlton E. Barber, H. Ivan Sippy, Leo F. Miller, Joseph G. Kostrubala and Louis B. Newman. The speakers for the afternoon program are Drs. Charles B. Huber, Geza de Takats, Alex J. Arieff, Harold A. Sofield, Fred W. Hark and Evan M. Barton.

Planned Parenthood Program.—Chicago has been chosen as one of a group of cities in the United States that will participate in 1948 in a coordinated study of human reproduction, it was announced December 17. Carl R. Moore, Ph. D., professor of zoology, has been named one of the fifteen members of a national committee that will guide the research project under the direction of the National Research Council, according to the Chicago Tribune. In a statement to the press, Dr. Edward M. Dorr, medical director of the Planned Parenthood Association, 203 North Wabash Avenue, said that the subjects to be studied will include the physiology of conception and its control, maternal and fetal processes, psychological problems of marriage and family relationships, and population aspects of these problems from a social, economic, and medical point of view.

Heart Association Plans Campaign.—The first statewide campaign to raise funds to finance the Illinois Heart Association's program of research, professional and lay education, and community services for the benefit of the victims of heart disease opened in January, reaching its peak during National Heart Week — February 9-14.

Appointment of Mr. H. J. Neumiller of Peoria as State Campaign Chairman of The Illinois Heart Association has been announced by Dr. Harry Durkin of Peoria, President of the Association. Mr. Neumiller is president of the Humitube Company, Peoria; is a past president of the Peoria Association of Commerce and past president of The Illinois Association of Commerce. Local chairmen are being appointed to direct community campaigns.

The Illinois Heart Association has headquarters at 203 North Wabash Ave., Chicago, in offices shared with the Chicago Heart Association with which it is affiliated, but confines its activities to Illinois outside of the Chicago metropolitan area.

Trudeau Society Chose Officers.—Dr. Arthur S. Webb, president of the Illinois Tuberculosis Association, was chosen president-elect of the Illinois Trudeau Society at its recent annual meeting in Springfield. Dr. Kenneth G. Bulley, medical director and superintendent of Springbrook Tuberculosis Sanatorium, Aurora, was installed as president. Other officers include Dr. J. T. Maher, medical director of Vermilion County Tuberculosis Dispensary, vice president, and Dr. L. L. Collins, medical director and superintendent of Madison County Tuberculosis Sanatorium, Edwardsville, secretary-treasurer. Dr. George C. Turner, senior physician, Chicago Mu-

nicipal Tuberculosis Sanatorium, and Dr. Charles Petter, medical director and superintendent, Lake County Tuberculosis Sanatorium, were named to the society's executive committee. At the same meeting, Dr. Clifton Hall, chief of the division of tuberculosis control, Illinois State Department of Public Health, was accepted for membership in the society.

HEALTH DEPARTMENT ACTIVITIES

New Diagnostic Clinic.—A state-aided cancer diagnostic clinic was opened at the Victory Memorial Hospital in Waukegan recently. Under the direction of the radiologist, Dr. E. W. Speckman, clinic sessions are held every Thursday beginning at nine o'clock in the morning. Dr. John C. McCarter is serving the new clinic as pathologist. The opening of the clinic at Waukegan brings to 17 the number of such centers which are in operation throughout the State. Others are located at Bloomington, Canton, Champaign, Chicago, Danville, DuQuoin, East St. Louis, Elgin, Evanston, Herrin, Jacksonville, Ottawa, Peoria, Rockford, Savanna and Springfield. Any resident of Illinois who has symptoms suggestive of cancer may arrange through his attending physician for admission to any one of these cancer diagnostic clinics.

Annual Report of Health Department.—The 29th Annual Report of the Illinois State Department of Public Health, covering the year ended June 30, 1946, has just been released. The chapter on "Peace-Time Trend in Public Health" prepared by Dr. Roland R. Cross, director of the state department, indicates that the general health conditions for the period covered were unusually favorable. The report indicates that continued expansion of the service of the department would be directed toward the promotion of adequate, efficient local public health machinery; the promotion of health education, particularly in the schools; and the promotion of the construction of adequate hospital facilities.

"For The Common Good"

"The Doctor and His Medical Society," the exhibit of the Illinois State Medical Society, was a feature of the January 12 meeting of the North Suburban Branch of the Chicago Medical Society at the University Club of Evanston. Dr. Lawrence J. Lawson is president of the Branch and Dr. William J. Blackwell, secretary. The following day the Exhibit was sent to the University of Chicago School of Medicine for a three week period. Thus far the exhibit has been displayed at the University of Illinois College of Medicine, Loyola University School of Medicine and the University of Chicago. "Doctors and Horses' and "The Medical" "The Doctor and His Medical Society," new brochures developed by the Committee on Rural Medical Service, The Committee on Medical Service and Public Relations and the Educational Committee, have been distributed to all medical students at the schools mentioned.

Praise went to the Educational Committee and the speakers cooperating in its Speakers Bureau in an article appearing in the Bulletin of the National Society for Medical Research for January-February. The way individual speakers emphasize the need for animal experimentation in talks before lay groups was outlined as well as the new plan of the Educational Committee to include a mimeographed statement of the accomplishments of research in letters to the speakers. The statement contains some fifteen authentic accomplishments that the speaker may draw from to tie in with his discussion.

The Illinois State Medical Society has purchased a special projector, accommodating any type or size of lantern slide, which will be available at all scientific and postgraduate conferences of the society. In addition, special photographic equipment has been made available for the conferences as well as other society activities.

Lectures Arranged Through the Scientific Service Committee of the Illinois State Medical Society:

Dr. Stanley Fahlstrom, Chicago, Vermilion County Medical Society at the Wolford Hotel, Danville, March 2, on "Diagnosis and Management of Arthritis."

Dr. Milan Novak, Chicago, Will-Grundy County Medical Society at the Louis Joliet Hotel, Joliet, Thursday, March 11, on "Streptomycin."

Dr. George B. Stericker, Chicago, Logan County Medical Society, at the Lincoln Hotel, Thursday, March 18, on "Arthritis."

Dr. John W. Huffman, Chicago, Will-Grundy County Medical Society at the Louis Joliet Hotel, Joliet, Thursday, March 25, on "Cancer of the Cervix."

Postgraduate Conferences Arranged Through the Postgraduate Education Committee of the Illinois State Medical Society:

Fourth Councilor District in Kewanee, date not yet determined, with Henry County Medical Society acting as host.

Seventh Councilor District in Decatur, March 25, with Macon County Medical Society acting as host.

Eleventh Councilor District in Kankakee, April 1, with Kankakee County Medical Society acting as host.

Eighth Councilor District in Champaign, April 8, with Champaign County Medical Society acting as host.

Tenth Councilor District in Murphysboro, March 11, with Jackson County Medical Society acting as host.

Sixth Councilor District in Carlinville, date not

yet determined, with Macoupin County Medical Society acting as host.

Lectures Arranged Through the Educational Committee of the Illinois State Medical Society:

Dr. Dorothy Chess, Chicago, Second Congressional District, Illinois Federation of Women's Clubs in Chicago, Thursday, January 22, on "The Expanding Field of Research."

Dr. Leo P. A. Sweeney, Chicago, Young Married Couples Sunday Evening Club, Austin Methodist Church, Austin, January 11, on "Medicine in World War II."

Dr. Mary G. Schroeder, Wilmette, West Side Branch, Woman's Auxiliary, Chicago Medical Society, Friday, February 20, on "Facing the Forties."

Dr. Franklin R. Fitch, Chicago, South Edgebrook Woman's Club in Chicago, February 23, on "Venereal Disease as a Public Health Problem."

Dr. Carroll L. Birch, Chicago, South Chicago Branch, Woman's Auxiliary, Chicago Medical Society, Monday, March 1, on "Seven Cycles of Life."

Dr. F. Jack Brown, Decatur, Salem Woman's Club in Salem, Tuesday, March 9, on "The Cancer Outlook Today."

Dr. Ernst Schmidhofer, Chicago, Jahn Parent-Teacher Association in Chicago, Thursday, March 11, on "Rearing Children."

Dr. Arlington Ailes, La Salle, Woman's Auxiliary, Bureau County Medical Society in Princeton, Monday, March 22, on "Public Health and Child Hygiene."

Dr. Groves B. Smith, Godfrey, Vandalia Woman's Club in Vandalia, Monday, March 8, on "Growing Old Gracefully."

Dr. Mary G. Schroeder, Wilmette, Park Manor Woman's Club, Tuesday, March 16, in Chicago, on "Looking Forward at Forty."

Dr. Robert R. Mustell, Chicago, Mothers Club of the Emerald Avenue Presbyterian Church, Tuesday, March 16, on "Socialized Medicine."

Dr. William W. Bolton, assistant director, Bureau of Health Education, American Medical Association, the Sutherland School Parent-Teacher Association, Friday, March 19, on "Keeping Children Healthy."

MARRIAGES

Ralph Glenn Whitmer, Oak Park, to Miss Harriet Echternach, Sterling, recently.

Charles K. Wells, Waltonville, to Mrs. Elizabeth Ava Arenas, St. Petersburg, recently.

William H. Todd, Chicago, to Miss Marie Hardwig, Little Fork, Minn., October 25.

Lester MacLean, Chicago, to Miss Mary Fay McDonald, Charleston, S. C., recently.

August F. Daro, Chicago, to Mrs. Maryann Major at Highland Park, November 29.

Carlos L. Hudson, Urbana, to Miss Betty Jean Pace of Blacksburg, Va., in Elliott City, Md., October 11.

DEATHS

Edward Bollinger, retired, Columbia, who graduated at Illinois Medical College in 1900, died in Christian Welfare Hospital, East St. Louis, December 15, 1947, aged 71.

Vincent Brendan Bowler, Oak Park, who graduated at Rush Medical College in 1919, died October 25, 1947, aged 52, of injuries suffered in an automobile accident. He had served in World War I and II and was formerly clinical associate in the department of dermatology at Loyola University School of Medicine.

Elizabeth N. Cahill, retired, Chicago, who graduated at Chicago College of Medicine and Surgery in 1909, died December 28, 1947, aged 82.

James Dixon, Golconda, who graduated at the College of Physicians and Surgeons, Keokuk, Iowa, in 1888, died in the Good Samaritan Hospital, Mount Vernon, November 15, 1947, aged 89.

Maurice F. Doty, retired, Chicago, who graduated at the University of Illinois College of Physicians and Surgeons in 1895, died January 4, aged 83.

Mark M. Duffy, Chicago, who graduated at Loyola University School of Medicine in 1915, died of a heart attack, December 11, 1947, aged 57. He was a veteran of World War I.

Joel Albert Eastman, Peoria, who graduated at Chicago College of Medicine and Surgery in 1910, died September 26, 1947, aged 67, of myocardial infarction. He was a member of the local board of health and at one time health officer.

George A. Green, Nashville, who graduated at St. Louis College of Physicians and Surgeons, St. Louis, died of a heart attack, November 20, 1947, aged 70. He was coroner of Washington County.

Frank John Gutmann, Chicago, who graduated at Chicago Medical School, 1923, died in St. Luke's Hospital, September 16, 1947, aged 49, of carcinoma of the rectum.

John M. Hickman, Westville, who graduated at the Medical College of Ohio, Cincinnati, in 1896, died November 18, 1947, aged 75. He was a member of the Fifty Year Club of the Illinois State Medical Society.

Ray W. King, Peoria, who graduated at Rush Medical College in 1926, died September 30, 1947, aged 48, of carcinoma of the lung. He served in World War II, and was on the staff of St. Francis Hospital, Peoria.

George Rufus Leonard, Chicago, who graduated at Indiana University School of Medicine, Indianapolis, 1908, died October 30, 1947, aged 70, of heart disease. He was on the staff of Ravenswood Hospital.

Emanuel John Senn, retired, Chicago, who graduated at Rush Medical College in 1893, died December 14, 1947, aged 78. He had served in World War I.

William P. Sherman, retired, Aurora, who graduated at Rush Medical College in 1889, died December 10, 1947, aged 85. He had practiced medicine in the Fox River Valley for 50 years.

Moses D. Tibbetts, retired, Highland, who graduated at Missouri Medical College in 1882, died January 13, aged 90. He had practiced at Chillicothe, Mo., and Pierron, Illinois, before going to Highland.

THIOURACIL DERIATIVE EFFECTIVE IN TREATMENT OF TOXIC GOITER

A comparatively new drug, propylthiouracil, has been found highly effective in the treatment of persons with toxic goiter, according to a study made by William S. Reveno, M.D., of Detroit.

Although propylthiouracil is a derivative of thiouracil, it is three times as powerful as that partment of Medicine, Harper Hospital and drug, states Dr. Reveno, who is from the De-Wayne University College of Medicine.

Writing in the April 19 issue of *The Journal of the American Medical Association*, he points out that "apparently it takes at least 32 milligrams of the new drug to match the effect of 100 mg. of thiouracil, which would make the potency of the former three times that of the latter," in patients whose systems were poisoned by excessive activity of the thyroid gland.

A goiter is an enlargement of the thyroid, the small gland situated in the front part of the neck. Two types of goiters were seen among the 54 patients treated by the author. One was the toxic nodular goiter which results in an assortment of symptoms such as palpitation of the heart, loss of weight and strength, insomnia, tremor, sweating, nervousness and other emotional disturbances. The other, toxic diffuse goiter, causes protrusion of the eyes and results in a more severe and rapid development of these toxic symptoms.

Dr. Reveno reports the following results: Of 18 previously untreated patients, 11 responded with abatement of symptoms, gain in weight and return of the basal metabolic rate to normal within four weeks; one patient responded after 11 weeks, treatment; one patient developed drug fever and five patients showed varying degrees of response just short of complete control because of too low dosage of the drug.

In 36 patients who had propylthiouracil substituted for thiouracil in their treatment, the disease continued under satisfactory control in 23, while that of 13 was not controlled as well, again because of too low dosage.

Moreover, the author points out, five patients who were sensitive to thiouracil did not experience difficulty with the new drug.

In conclusion, Dr. Reveno states that "of the two antithyroid drugs, propylthiouracil, though its action is slower at present dosage levels, is much safer than thiouracil. While faster action may follow larger doses, toxic reactions may also occur, for propylthiouracil is still the more powerful of the two drugs."



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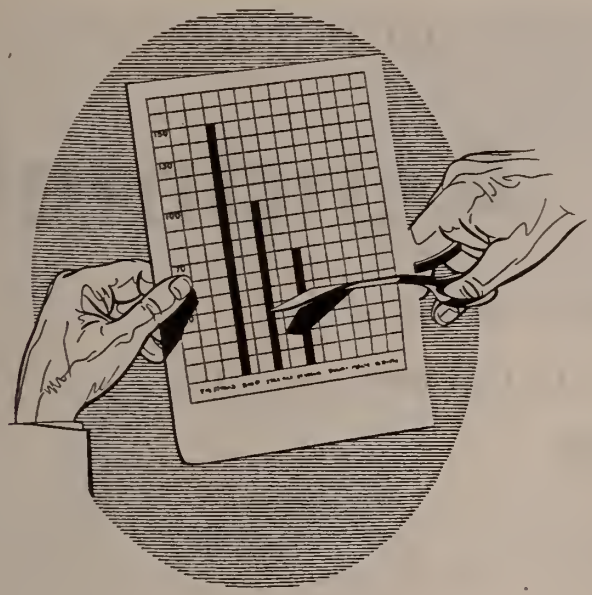
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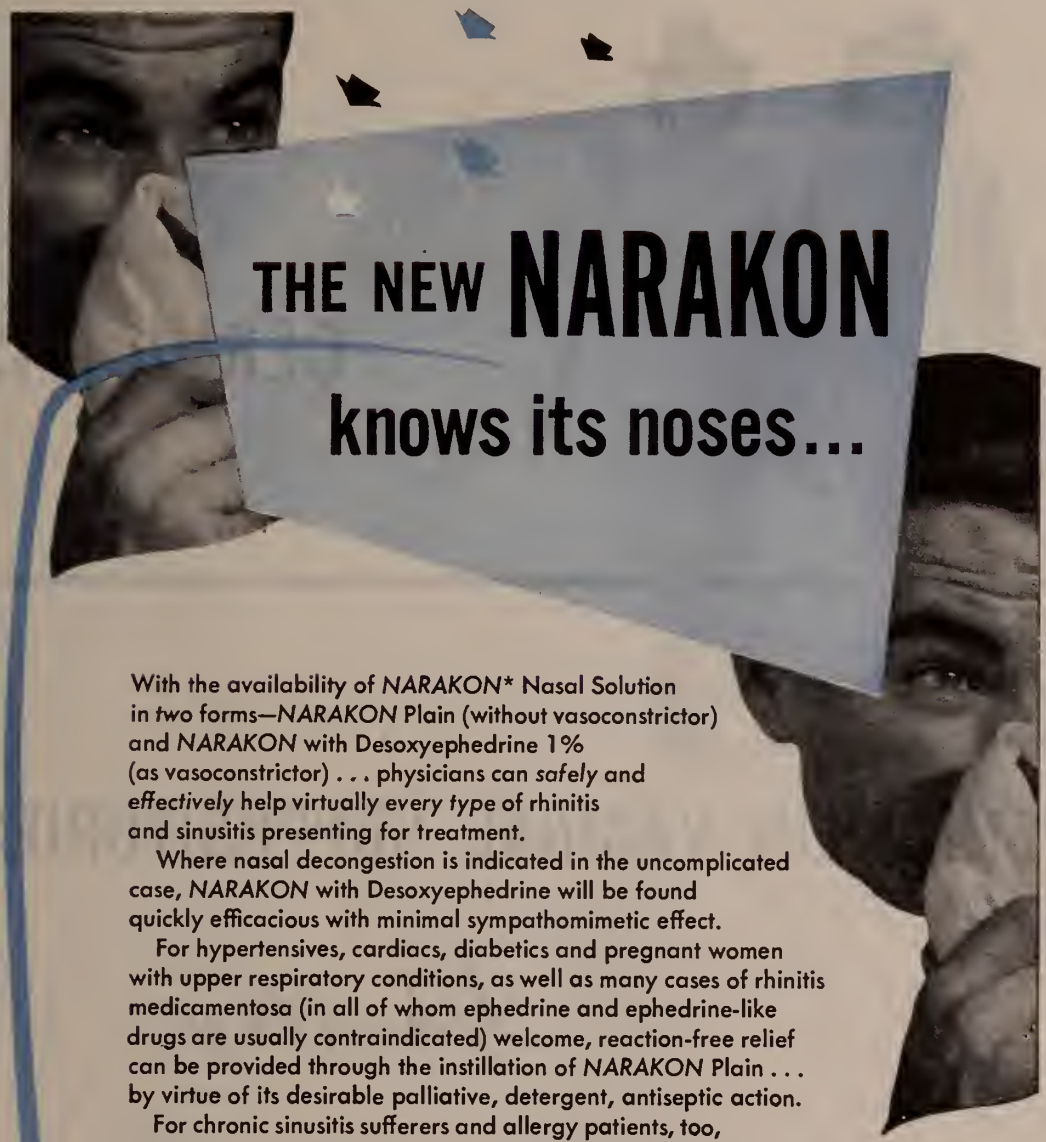
*Lehr, D.: Proc. Soc. Exper. Biol. & Med. *58*:11 (Jan.) 1945.
Lehr, D.; Slobody, L., and Greenberg, W.: J. Pediat. *29*:275 (Sept.) 1946.

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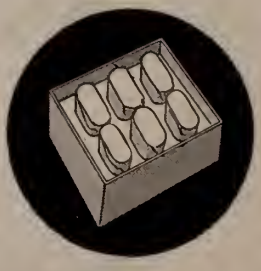
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Sinusitus, ear infections, bronchitis, and the various forms of pneumonia are frequently ushered in by a cold. Pneumonia, particularly, is likely to attack a person who is overtired, or run-down because of a severe cold.

True, many of these respiratory diseases are not as dangerous as they used to be. (Modern infection-fighting drugs—such as penicillin and the sulpha drugs—offer highly effective treatment for many cases.)

But, of course, it is always better to *prevent* a serious illness whenever possible.

If you have a cold, it's just good sense to stay away from people, to avoid spreading the infection; and to get plenty of rest—in bed if possible.

If your cold is accompanied by fever, a persistent cough, or a pain in the chest, face, or ear, call your doctor at once.

The sooner you seek his help, the more he can do to help you avoid a long and serious illness.

And, in the case of children, an early examination may disclose that what appears to be only a cold may instead be a starting symptom of an entirely different disease, such as measles or scarlet fever.

SEE YOUR DOCTOR. Never try the foolhardy experiment of dosing yourself. Your doctor's treatment of one illness may be quite different from his treatment of another illness which appears the same to you.

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*Long, C.-F., M.D.: Edrisal in the Management of Dysmenorrhea, Indust. Med. *15*:679 (Dec.) 1946. Indust. Nurs. *5*:23 (Dec.) 1946.

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Arch. Otolaryngol., 43:605, 1946.
E., E., N., & T. Mo., 26:27, 1947.
Laryngoscope, 56:556, 1946.
New Eng. J. Med., 234:468, 1946.
Annals of Allergy, 4:33, 1946.
J. A. Ph., A., (Sc. Ed.) 35:304, 1946.

Literature on request.

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1. Gusberg, S. B., Am. Jl. Obst. & Gyn. 50:502, 1945

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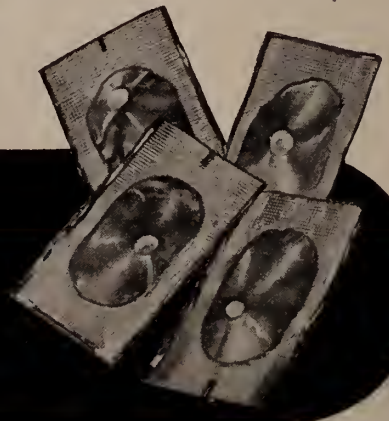
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SODIUM AMYTAL HELPS RESTORE SPEECH AFTER BRAIN INJURIES

Neurologist Suggests Its Use To Explore Psychologic Component In Many Organic Brain Diseases

Sodium amytal, the sedative and hypnotic extensively used in psychiatric practice to make patients talk more freely, may also help patients who have lost their powers of speech following physical injury to the brain centers, according to a member of the Neurological Service of the Mount Sinai Hospital, New York.

Writing in the current issue of *Archives of Neurology and Psychiatry,* published by the American Medical Association, Louis Linn, M.D., says that he and a fellow neurologist first observed this effect while on military duty in North Africa during the war. Men suffering from an impairment of speech after being wounded in the brain by shell fragments improved "suddenly and dramatically" when the drug was injected into their veins, and in some cases the improvement was sustained long after the effects of the sodium amytal had worn off.

From his civilian practice Dr. Linn describes two similar cases. In the first, a woman had had a brain operation which left her with paralysis of one side of the body associated with aphasia. She reacted by emotional outbursts, and in conversations became quickly exhausted and discouraged. Given a group of simple tests to perform which included naming objects and indicating what they were used for, under the influence of sodium amytal she cheerfully completed in a few seconds the tasks which before had taken minutes of painful, futile struggle. She was also able to sustain her attention and energy output over a long period of time.

In the second case, a patient with a blood clot in the brain suffered from the same effects. The paralysis cleared up, but the aphasia persisted. "The patient was practically mute," Dr. Linn writes. "She was given an intravenous injection of sodium amytal. . . . A striking improvement in her speech resulted. However, as the effect of the drug wore off she lapsed into her previous state of mutism. With repeated injections, the ability of the drug to produce this transitory improvement was gradually lost. At this time the patient is, once again, practically mute."

"It has long been known that many cases of impairment in cerebral function have an emotional overlay," Dr. Linn concludes. "The aphasic person who cannot speak the words of a verse can sometimes sing them, and in response to sufficient emotional pressure may be able to utter expletives which he cannot speak as single words. . . . Obviously, sodium amytal does not reverse an organic process. However, its use in the manner described not only may make it possible to hasten the rehabilitation of patients with post-traumatic aphasia, but may afford opportunities to explore the psychologic component in many apparently hopeless cases of organic disease of the brain."

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Physical Medicine Abstracts

John S. Coulter, M.D.

THE USE AND ABUSE OF REST

Lord Horder, G.C.V.O., M.D., F.R.C.P.
Physician in Ordinary to H.M. The King; Consulting Physician, St. Bartholomew's Hospital
In THE PRACTITIONER, No. 950
August 1947

In medicine two names stand out prominently in connection with the advocacy of rest as a therapeutic agent — John Hilton in this country and Weir Mitchell in America. Hilton's lectures on "Rest and Pain" were delivered at Guy's Hospital during 1860-2; in 1874 Weir Mitchell "developed for a single seemingly hopeless case, literally at a woman's bedside, the treatment by seclusion, rest, massage, full feeding and electricity", which for many years carried his name, and told in lectures during 1875-7 what he had done. Both these pioneers were subjected to considerable criticism, each in his own day, and especially Weir Mitchell. This was an inevitable consequence of the promulgation of a new doctrine — new, it should be said, in its application, although admittedly old in its principle.

"Rehabilitation" in its widest sense has made a large contribution to a scientific assessment of the need for, and employment of, rest periods both in the medical and surgical fields. Originally a concept based upon economic grounds it has pervaded the physiological and psychological spheres and has proved of great value in the hands of thinking and trained physicians and surgeons.

The sure and ackknowledged place which psychotherapy has achieved in the treatment of the neuroses and the minor psychoses since Weir Mitchell's time has displaced the isolation which was a prominent part of his system, so prominent, indeed, that it was not uncommon to see "quietness grown sick of rest" replaced by despair, a worse state than mere boredom.

How to rest. — This does not come by instinct. If it did, the patient would not so often require it. Indeed, training in relaxation might be regarded as prophylactic treatment against the "nervous breakdown" for which rest is so often prescribed. Call it "meditation", "yogi", "the quiet hour", or what you will, it has a hygienic value that goes back at least to Marcus Aurelius, and the value is both spiritual and physical. If now, for lack of this habit, the hot and chafing mind, dragging its "tired" body with it, needs rest, the doctor must give the necessary instruction, even demonstration, and must follow up his teaching by frequent contacts so that he may be assured that the instruction is understood and observed. Throughout all this the doctor's attention must be equally divided between the patient's body and his mind, between the spasm at his pylorus or in his colon and the spasm in his mind. In this way only can rest achieve its full and proper purpose.

THE DIAGNOSIS AND TREATMENT OF PERIPHERAL NERVE INJURIES

Warner L. Wells, M.D., Raleigh
In NORTH CAROLINA MEDICAL JOURNAL, 8:8:439
August 1947

Postoperatively, the limb is maintained in proper position with a plaster splint or cast.

Physiotherapy in the form of heat, massage, passive movement, exercise, manual training, and

(*Continued on page* 54)

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**Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154*
Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60
Proc. Soc. Exp. Biol. and Med., 1934, 32, 241
N. Y. State Journ. Med., Vol. 35, 6-1-35, No. 11, 590-592.

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PHYSICAL MEDICINE (Continued)

electrical stimulation is of inestimable value both pre- and post-operatively as a means of preventing or overcoming contracture, maintaining adequate nutrition, and hastening re-education. It is important to point out to the patient the necessity for continuing at home the professional physiotherapist's measures, which rarely consume more than an hour every day or two.

The patient should, moreover, be taught to guard against injury to the part.

Corrective splints and braces are used to prevent or overcome contractures, to prevent overstretching of paralyzed muscles and their tendons, and to compensate for muscles lost through paralysis.

Recovery is manifested by a progressive descent of Tinel's sign. Sensation, motion, and trophic supply appear in that order.

In general, the radial, axillary. and musculocutaneous nerves have good function within a year after suture, the median and ulnar in eighteen months to two years, the femoral in twelve months, the sciatic in two to three years, the peroneal and tibial in eighteen months.

TECHNICAL IMPROVEMENTS IN THE DIATHERMY OPERATION OF THE RETINA

Prof. A. Kettesy, Debrecen, Hungary

In BRITISH JOURNAL OF OPHTHALMOLOGY,
31:7:436
July 1947

The diathermy operation for retinal detachment, in spite of its great development, still has such technical difficulties, which may be eliminated by improvement of the instruments used in the principal phase of the operation, the coagulative closing of the hole by the pointed perforating electrode.

There have been two main forms of perforating electrodes in use up to date: the needle, as described and used by Weve, Vogt, Szily-Machemer and others, and the nail of Safar and Arruga.

The drawback of the needle is that it has to be pulled out after every puncture.

Attempts have been made to avoid these inconveniences by shortening the working length of the needle and by refining its point.

There have been still more drawbacks in Sa-

(*Continued on page* 58)

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PHYSICAL MEDICINE (Continued)

far's set. His insulated forceps did not seize the nail firm enough. During the insertion it readily tilts over. The forceps is too clumsy, its faces are too large, and sometimes it is difficult to get deep enough with it into a narrow slit.

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OBSERVATIONS ON EARLY POSTOPERATIVE RISING

Thomas F. Keyes, M.D., Marysville, California

In AMERICAN JOURNAL OF SURGERY, 74:2:192 August 1947

There has been a trend sweeping the country during the past few years for surgeons to let their surgical patients up from bed early. The author would like to give here his own clinical observations over a five-year period.

During the past five years the writer has allowed the majority of his postoperative surgical patients to rise early, i.e., on the first or second postoperative day. This procedure was actually started by the patients themselves in a county hospital when they got up of their own accord. The author observed that those patients who did so got along much better and had a much smoother postoperative course than those patients who remained in bed during their entire hospital stay.

Summary

1. Early postoperative rising is of great advantage to the early recovery of the patient.

2. Early rising leads to a lower incidence of embolism.

3. It reduces the number of days in the hospital for those who stress an economic viewpoint.

4. Suture material, in the author's experience, actually does not make any difference in the closure and in getting the patient up, whether cotton or catgut is used.

5. There is no greater incidence of hernia as a result of early rising.



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PHYSICAL THERAPY IN THE MANAGEMENT OF TENDON REPAIR

George D. Wilson, M.D., Ashville, N. C.

In ARCHIVES OF PHYSICAL MEDICINE,
28:7:439
July 1947

The physical therapy regimen for tendon repair is begun fourteen days following operation at which time the sutured tendon is ready for functional movements.

First Week. — Radiant heat and superficial effleurage are used and are followed by active exercises at the table for tendon grafts and muscle reeducation for tendon transplants; reexamination includes range of joint motion.

Second Week. — Radiant heat and superficial effleurage are continued together with active resistive exercises with apparatus for the particular extremity. Muscle reeducation is continued in tendon transplants with the therapist offering resistance; maximum muscle power is not determined at this time as used in a heavy resistive exercise program.

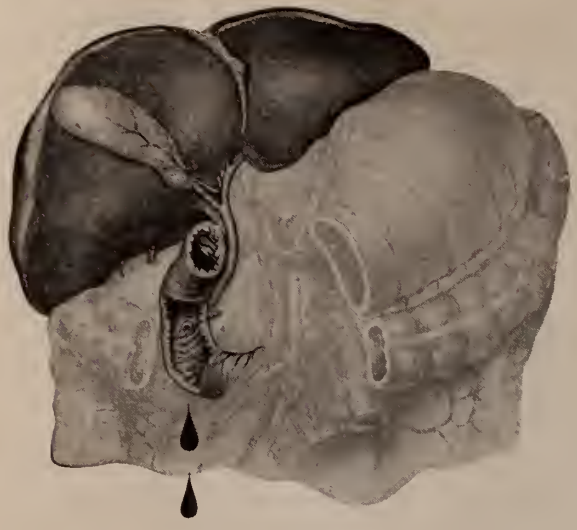
Third Week. — In tendon grafts radiant heat followed by progressive type, active, resistive exercises, the patient using a low number of repetitions (ten) with each added weight until a total of sixty to eighty repetitions is completed. In tendon transplants after preliminary heating by radiant heat to insure adequate circulation, active resistive progressive exercises as advocated in a heavy resistive exercise program are used.

Daily inspection is made by the physiatrist to insure the exact range of motion in the joint being exercised and the amount of resistance. Daily inspection has been found especially advisable in cases in which silk sutures have been used in the surgical repair. It was noted that when silk sutures were used either in the tendon suture or in the skin suture or in both repaired areas there was a greater tendency for collection of serum or for stitch abscess formation, apparently in spite of surgical antisepsis and regardless of the amount and type of physical therapy. It was noted that the experienced surgeon preferred other suture material to silk. The importance of knowing the type of suture material is stressed, especially in those cases of tendon repair in which a gliding surface of



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*Albrecht, F. K.: Modern Management in Clinical Medicine, Baltimore, The Williams and Wilkins Co., 1946, p. 170.

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PHYSICAL MEDICINE (Continued)

fascia was provided and the possibility existed that a silk suture knot would cause irritation in the gliding surface with consequent swelling.

EARLY POSTOPERATIVE AMBULATION

Edwin A. Balcer, M.D., Chicago, Ill.

In THE AMERICAN JOURNAL OF SURGERY, LXXIV:4:472
October, 1947

The purpose of this paper is to describe the method used in early postoperative ambulation in 144 cases of varied abdominal operations performed by the author since July 1944.

The most important advantages are decreased pulmonary and circulatory complications which result mainly from basal atelectasis and peripheral venous stasis. Clinically, this fact is supported by lower postoperative temperatures, an earlier return to normal and a lower pulse rate as compared with the strictly confined bed patients: such observations were made and recently reported by Powers, Shafer and Dragstedt. Physiologically, it has been shown by Leithauser that the vital capacity in early ambulatory patients returns to normal in approximately one-half the time required for bed patients, while McMichael and McGibbons have demonstrated that recumbency decreases the total volume of air in the fully expanded lungs as well as the functional residual air. The studies of Smith and Allen revealed that exercise decreases the circulation time in the extremities.

Other advantages include reduced frequency of abdominal distention, absence of asthenia, shortened hospital duration and early restoration to normal activity. Having the patient attend to his personal hygiene and lessening his hospital stay are of great importance psychologically and economically, to the patient as well as to the community having limited hospital beds, nursing personnel or in time of emergency.

Poverty causes illness, and illness, in turn, is a major cause of poverty. This vicious circle has long been recognized. It has also long been appreciated that it may be broken by social-economic measures, income, and living standards, and by medical care competent to lower the incidence and severity of disease. Medicine in the Changing Order, Rep. N.Y. Acad. Med. Comm., The Commonwealth Fund, 1947.

Book Reviews

AN ATLAS OF ANATOMY. J. C. Boileau Grant, M.C., M.B., Ch. B., F.R.C.S. (Edin.), Professor of Anatomy in the University of Toronto. Second Edition. 1947. The Williams and Wilkins Company, Baltimore. 496 pages. $10.00.

This is the second edition of this popular atlas of anatomy. The first edition was published in 1943 and the response was so good it was reprinted in 1944 and again in 1945. The second edition contains more than two hundred new illustrations and the entire work has been rearranged, enlarged and improved. There is now complete coverage of hernia, common anomalies discovered in the dissecting room, illustrations of epiphyses of the long bones and plates of the cranial nerves.

This atlas takes up the anatomy of the human body region by region as is done by the student in the dissecting room. The illustrations are copied from enlarged photographs to insure accuracy. The text is not exhaustive but intended as an interpretation of the illustrations. Color has been used extensively to bring out important features of the illustrations. The terminology used is the Birmingham Revision of the B.N.A. Common anomalies are well covered. A few typographical errors are noted which will no doubt be corrected in the subsequent printings which this volume deserves. It is recommended for students of anatomy.

J.C.S.

DIAGNOSIS IN DAILY PRACTICE: An Office Routine Based on the Incidence of Various Diseases: By Benjamin V. White, M.D., Assistant Clinical Professor of Medicine, Yale University School of Medicine; Consultant in Gastroenterology, Veterans Administration Hospital, Newington, Conn., AND Charles F. Geschickter, M.D., Professor of Pathology, Georgetown University Medical School; Consultant in Pathology, United States Naval Medical School, Bethseda, Maryland. 693 Pages, 360 illustrations. Philadelphia & London: J. B. Lippincott Company, 1947. Price $15.00.

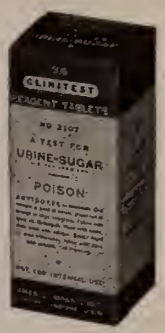
This book comprises a comprehensive collection of diagnostic data regarding the major causes of disease. It goes farther than the usual text book of physical

(*Continued on page* 64)

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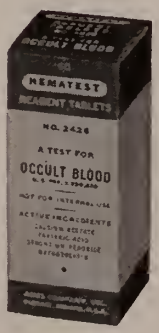
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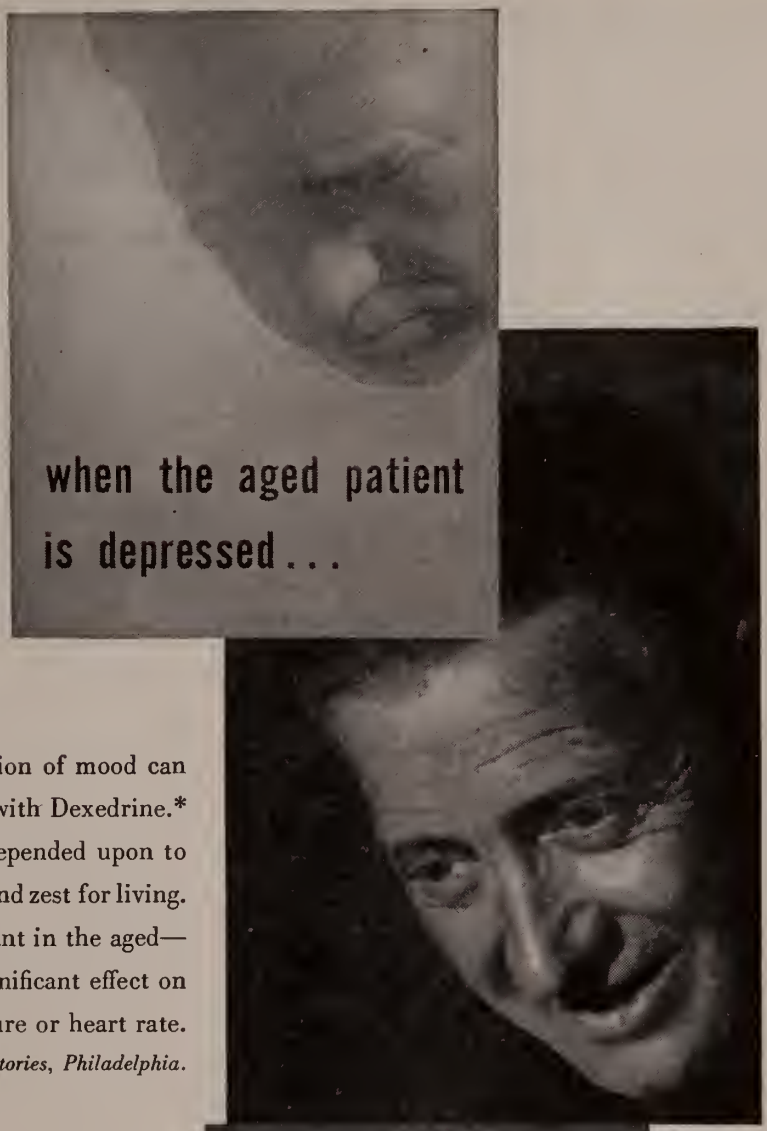
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BOOK REVIEWS (Continued)

diagnosis by offering evaluation of the clinical findings and the differential diagnostic aspects encountered clinically. The book is divided into five parts: the diagnostic survey including presymptomatic diagnosis, statistical survey, and general diagnostic procedures, including etiological and regional abnormalities; diagnostic abnormalities and symptoms; diagnostic physical findings; laboratory procedures; and the major diseases. The authors take a major symptom or physical finding and elicit in outline all of the possible causes for this abnormality. Further elaboration is made in a table of differential diagnosis of this symptom or finding. Cross-references are made of the relationship of this finding to other systems of the body. Adequate descriptions and discussions accompany the major abnormalities.

There are many photographs, diagrams, and charts. There are several very good color photographs, illustrating differential diagnostic aspects.

This book handles a difficult task well. Superfluous and theoretical material has been omitted. Statements are concise and clear. Photographs are well selected and informative.

This book is well recommended.

J.W.F.

MAY'S MANUAL OF THE DISEASES OF THE EYE, Edited by Charles A. Perera, M.D., Assistant Clinical Professor, College of Physicians and Surgeons, Columbia University; Assistant Attending Ophthalmologist, Presbyterian Hospital, New York. 387 illustrations, including 32 plates with 93 colored pictures. Published by Williams & Williams Company, Baltimore; 1947. 19th Edition. Price $4.00.

May's Manual of the Diseases of the Eye needs no introduction to the medical profession because it has been a standard foundation text-book for many years. This 19th edition has been thoroughly revised and brought up to date. There are 26 chapters with 387 illustrations, including 32 plates and 93 colored figures. Anything of practical value has been illustrated. One can divide the book into three general sections: external, functional and objective examination; diseases of the extra-ocular and ocular structures; and optical principles, refractive errors, disturbances of motility, ocular therapeutics, and systemic manifestations. New additions include penicillin therapy, the modern theory of color vision and its anomalies, thyrotropic and thyrotoxic exophthalmos, congenital cataract following material rubella, and ocular brucellosis. The appendix describes present day military ophthalmological standards. The past and present popularity of this book will continue to remain on the same high level with students and general practitioners who will continue to find it an invaluable guide and foundation in ophthalmology.

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Books Received

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

A Textbook of Pathology; An Introduction to Medicine: By William Boyd, M.D., M.R.C.P., (Edin.), F.R.C.P., London, LL.D., Sask., Professor of Pathology and Bacteriology of the University of Toronto. Fifth Edition (Published October, 1947) 1049 Pages, 500 Illustrations, 30 Plates in Color. Lea & Febiger, Washington Square, Philadelphia 6, Pa. Price $10.00.

Applied Medical Bacteriology: By Max S. Marshall, Ph.D., With the collaboration of Janet B. Gunnison, M.A., Alfred S. Lazarus, Ph.D., Elizabeth L. Morrison, M.A., Marian C. Shevky, A.B., Division of Bacteriology, Medical Center of the University of California, San Francisco, California. Illustrated. Lea & Febiger, Washington Square, Philadelphia, Pa., Price $4.50.

Histopathologic Technic: By R. D. Lillie, A.B., M.D., Medical Director, U.S. Public Health Service; Chief, Pathology Laboratory, National Institute of Health. The Blakiston Company, Philadelphia 5, Pa., Price $4.75.

Medicine: By A. E. Clark-Kennedy, M.D., F.R.C.P., Fello of Corpus Christi College, Cambridge; Physician to the London Hospital and Dean of the Medical School. Volume I. "The Patient and His Disease." The Williams and Wilkins Company, 1947. Baltimore. Price $6.00.

Physicians' Desk Reference to Pharmaceutical Specialties and Biologicals. Five Sections. Richard R. Maehler, Editor of Compilation and Arrangement; E. C. L. Miller, M.D., Medical College of Virginia, Richmond, Editor of Nomenclature. J. Morgan Jones, Editor and Publisher. Published by Medical Economics Inc., Rutherford, N. J.

Diabetes Mellitus in General Practice: By Arthur R. Colwell, M.D., Associate Professor of Medicine and Director of Medical Specialty Training, Northwestern University Medical School; Attending Physician, Evanston Hospital, Evanston, Ill.; Consulting Physician, Wesley Memorial Hospital, Chicago. The Year Book Publishers, Inc., Chicago, 1948. Price $5.25.

Treatment of Some Chronic and "Incurable" Diseases: By A. T. Todd, O.B.E., M.B. (Edin.), M.R.C.P. (Lond.), Honorary Physician, Bristol Royal Infirmary. Second Edition. Baltimore. The Williams & Wilkins Company, 1947. Price $7.00.

An Introduction to Gastro-Enterology, A Clinical Study of the Structure and Functions of the Human Alimentary Tube. By James Dunlop Lickley, M.D., Hon. Consulting Physician, Sick Children's Hospital,

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BOOKS RECEIVED (Continued)

Newcastle-upon-Tyne; Late Lecturer on Medical Applied Anatomy, Medical School, King's College, University of Durham. With 21 Illustrations. Baltimore, The Williams & Wilkins Company, 1947.

RADIUM DOSAGE, The Manchester System: Compiled from Articles by Ralston Paterson, M.D., F.R.C.S., F.F.R., F. W. Spiers, Ph.D., S. K. Stephenson, B.Sc. Tech., H. M. Parker, M.Sc., F. Inst. P., M.C. Tod, F.R.C.S., F.F.R., W. J. Meredith, M.Sc., F.Inst.P.; Edited by W. J. Meredith, M.Sc., F.Inst.P., Christie Hospital and Holt Radium Institute, Manchester. Baltimore. The Williams and Wilkins Company, 1947. Price $4.50.

EMOTIONAL MATURITY: The Development and Dynamics of Personality: By Leon J. Saul, M.A., M.D., Associate Professor of Psychiatry, Temple University School of Medicine, Special Lecturer in Psychiatric Information, Bryn Mawr College. Philadelphia and London, J. B. Lippincott Company, 1947. Price $5.00.

PSYCHOPATHOLOGY AND EDUCATION OF THE BRAIN-INJURED CHILD: By Alfred A. Strauss, Psycho-Educational Consultant, Evanston, Illinois; President, Cove School for Brain-injured Chidren, Racine, Wisconsin; and Laura E. Lehtinen, Psycho-Educational Consultant, Evanston, Illinois; Educational Di-

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rector, Cove Schools for Brain-injured Children, Racine, Wisconsin. Grune & Stratton, New York, 1947. Price $5.00.

GYNECOLOGICAL AND OBSTETRICAL UROLOGY: By Houston S. Everett, A.B., A.M., M.D., Associate Professor of Gynecology, the Johns Hopkins University, and Associate in Gynecology, the University of Maryland, Gynecologist and Gynecologist in Charge of the Cystoscopic Clinic, the Johns Hopkins Hospital, etc. Second Edition. Baltimore, The Williams & Wilkins Company, 1947. Price $6.00.

In 1893, Herman M. Biggs, Commissioner of Health, New York City, required public institutions to report cases of tuberculosis and private physicians were requested to do so. In 1897 the sanitary code of the New York City Department of Health required that all cases of tuberculosis be reported. Life of Herman Biggs, C.E-A. Winslow, Lea and Febiger, Phila., 1929.

The aim of rehabilitation is to bring about the optimum adjustment of each patient in spite of any physical defects, mental deficiencies, emotional weaknesses and social shortcomings that he may have. Ezra Bridge, M.D., Amer. Rev. of Tub., April, 1947.

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SURGERY CALLED ONLY HOPE IN RARE DISEASE, PANCREATIC CALCULOSIS

Pancreatic calculosis, a rare and painful disease in which calcium slowly accumulates in the pancreatic duct in scattered particles that eventually form stones, is described in the December 20 issue of *The Journal of the American Medical Association* by Lay Martin, M.D., and Jorge Diez Canseco, M.D., Baltimore, from the Department of Medicine of the Johns Hopkins University and Hospital.

The pancreas, located behind the stomach, is a gland whose secretions play an important role in digestion and carbohydrate metabolism.

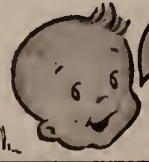
In the past seven years, the doctors report, only 11 patients with calcified areas in their pancreases have been recognized clinically at Johns Hopkins Hospital. A search through the autopsy records at the hospital revealed only 10 more.

A study of the 21 cases gave no clue as to the cause of the condition, which is characterized by severe attacks of pain in the upper abdomen, but showed that the greatest incidence of onset of symptoms lay between 35 and 45 years. Males were more frequently affected than females, and eight of the 21 cases had been alcoholics before their symptoms appeared.

"Most patients with this disease are in an unfortunate position," the doctors write. "In the course of its development they may look forward to years of pain, with only a hope that eventual atrophy of the gland will bring surcease. They may also look forward to a 25 per cent chance of acquiring diabetes. Many of them will probably not be able to withstand the pain, and they will become narcotic addicts. Many of them will become emaciated and weak from lack of food, for they will prefer starvation to the pain instituted by eating."

Medical treatment offers little, the doctors say. However, they report excellent results from some forms of surgical treatment.

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Example of severe rickets in a sunny clime.

LEST WE FORGET—we who are of the vitamin D era—severe rickets is not yet eradicated, and moderate and mild rickets are still prevalent. Here is a white child, supposedly well fed, if judged by weight alone, a farm child apparently living out of doors a good deal. This boy was reared in a state having a latitude between 37° and 42°, where the average amount of fall and winter sunshine is *equal to that in the major portion of the United States*. And yet such stigmata of rickets as *genu varum* and the quadratic head are plain evidence that rickets does occur under these conditions.

How much more likely, then, that rickets will develop among city-bred children who live under a smokepall for a large part of each year. True, vitamin D is more or less routinely prescribed nowadays for infants. But is the antiricketic routinely administered in the home? Does the child refuse it? Is it given in some unstandardized form, purchased from a false sense of economy because the physician did not specify the kind?

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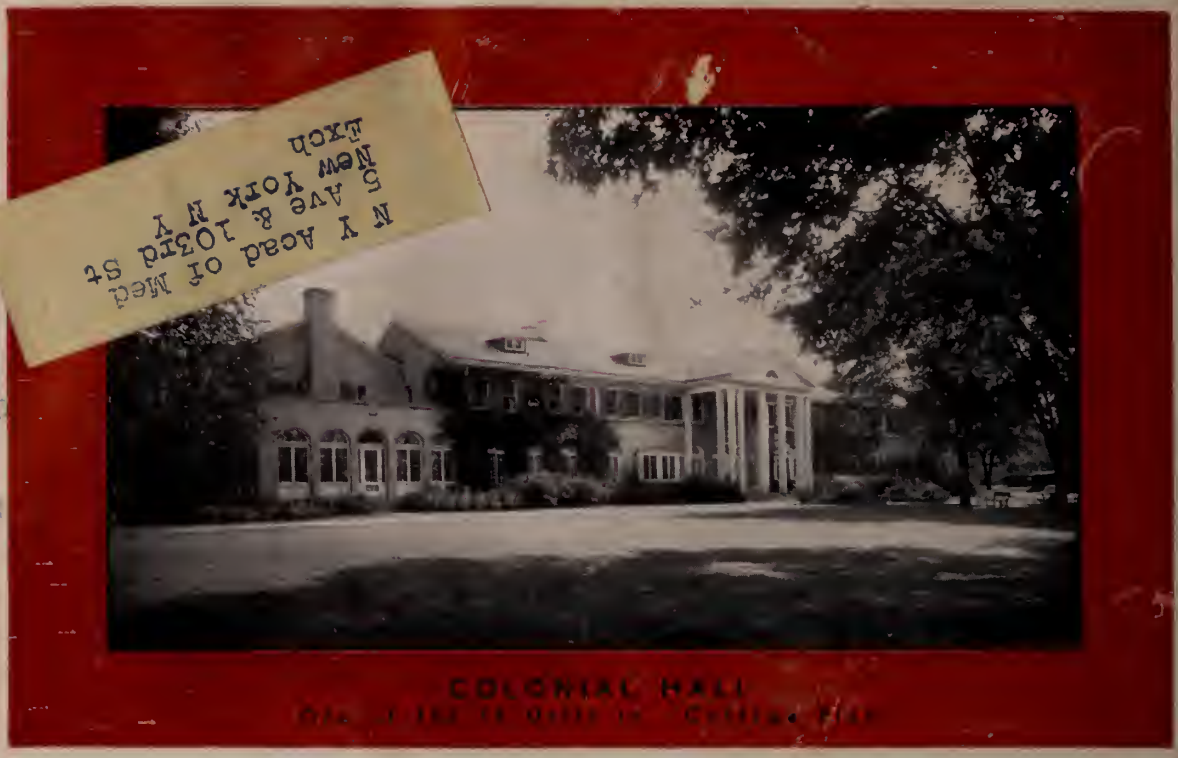


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The
ILLINOIS
Medical Journal

VOL. 93 ✳ NO. 3

March, 1948

The Diagnosis of Accessible Cancer

✦

Vesicovaginal Fistula

✦

Medico-Legal Briefs

✦

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ANNUAL MEETING, ILLINOIS STATE MEDICAL SOCIETY
PALMER HOUSE, CHICAGO, MAY 10, 11, 12, 1948

OFFICIAL JOURNAL OF THE ILLINOIS STATE MEDICAL SOCIETY

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in weight reduction— new evidence of the efficacy of Dexedrine

Excerpts from a recent study entitled, THE MECHANISM OF AMPHETAMINE-INDUCED LOSS OF WEIGHT: A Consideration of the Theory of Hunger and Appetite —by Harris, S. C.; Ivy, A. C., and Searle, L. M.: J. A. M. A. 134:1468 (Aug. 23) 1947.

experiment 1. Does 'Dexedrine' Sulfate, by controlling appetite, decrease food intake and body weight in human subjects?

results ". . . our obese subjects lost weight when placed on a diet which allowed them to eat all they wanted three times a day . . ."

experiment 4. Does the rather prolonged administration of Dexedrine cause any evidence of disturbance of tissue functions?

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BIBLIOGRAPHY: 1. Allen, H. S. and Koch, S. L.: Surg., Gynec. and Obs., 74:914, 1942. 2. Cannon, B.: Surgery, 15:178, 1944. 3. Clowes, G.H.A.: Annals of Surg., 118:761, 1943. 4. Conklin, F. L.: Mil. Surgeon, 96:139, 1945. 5. Hirshfeld, J. W. et al.: Surg., Gynec. and Obst., 76:556, 1943. 6. Lund, C. C. et al.: Int. Abst. Surg., 82:443, 1946. 7. Lyon, D. W.: J. Maine M. A., 36:19, 1945. 8. McClure, R. D. and Lam, C. R.: J. A. M. A., 122:909, 1943. 9. MacLaughlin, C. W.: Nebraska M. J., 31:11, 1946. 10. Porter, J. E.: Surg., Gynec. and Obst., 78:477, 1944. 11. Romence, H. L.: Am. J. Surg., 73:340, 1947.

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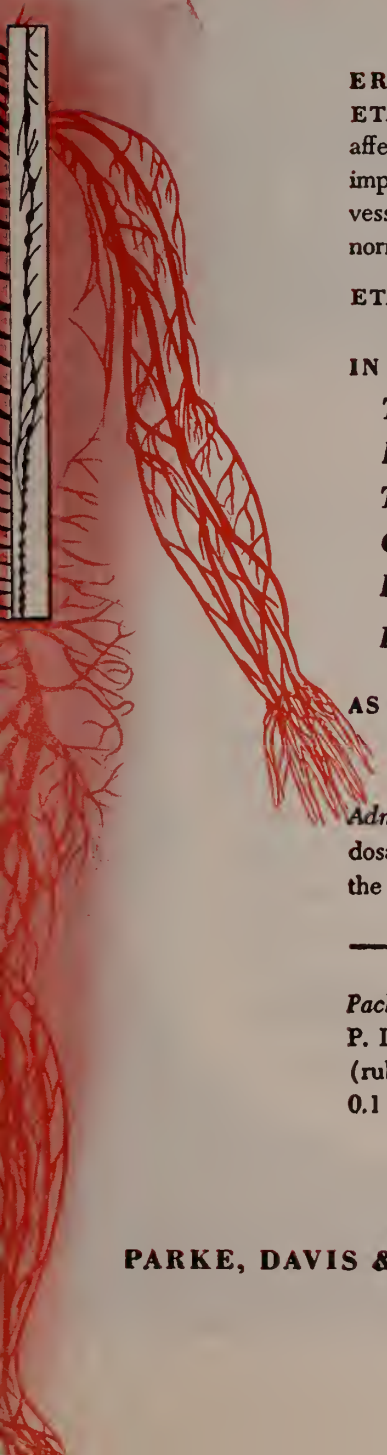
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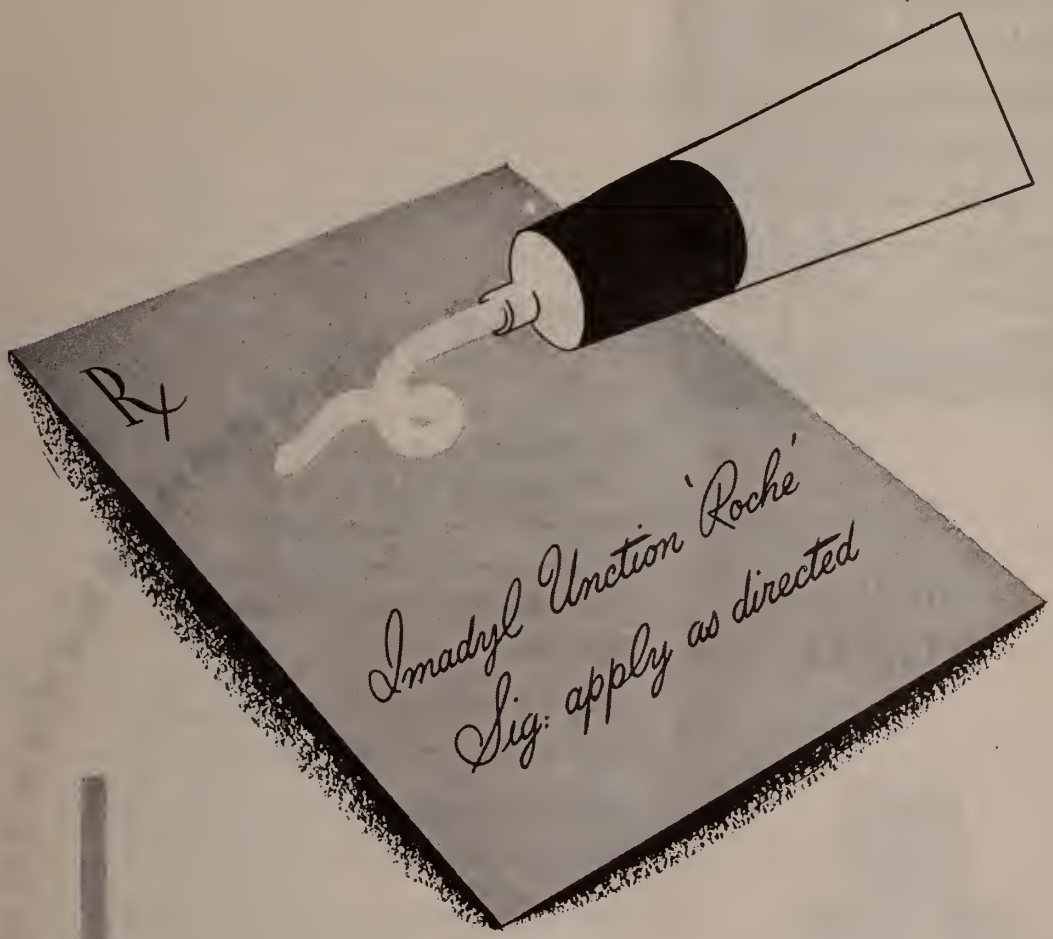
In pediculosis corporis and pubis, Kwell Ointment offers positive, clean therapy. Shaving is usually not necessary. In some persons, reapplication in 3 days may be needed.

CSC

With Kwell Ointment, scabies and pediculosis are completely eradicated in most patients by a single application. This new and unique parasiticide is thoroughly nonirritant and does not lead to dermatitis or other skin reactions. The active ingredient of Kwell Ointment is the gamma isomer of 1,2,3,4,5,6-hexachlorocyclohexane. In the concentration used (1%), it is harmless to man but quickly lethal for the Sarcoptes of scabies and the pediculi responsible for pediculosis pubis, corporis, and capitis. Kwell Ointment is compounded with a vanishing cream base, hence is greaseless, odorless, and nonstaining to skin, clothing, or linen. Safe for use on infants' skin and tender skin areas of adults. Available on prescription at all pharmacies; in 2 oz. and 1 lb. jars.

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AMINOPHYLLINE B-M is manufactured from basic materials by an improved process developed in our own laboratories. Each lot is rigorously controlled to assure:

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Stability—AMINOPHYLLINE B-M is markedly resistant to deterioration.

Potency—Activity is confirmed by controlled pharmacodynamic studies.

Effectiveness—Established by clinical experience.

The Barlow-Maney enteric coating* is a special formula. It protects the medication against the action of normal gastric juices, yet disintegrates readily in the intestinal environment. Thus, gastric irritation in sensitive patients is avoided.

AMINOPHYLLINE BARLOW-MANEY

SUPPLIED: Plain and enteric-coated tablets of 0.2 Gm. (3 grains) and 0.1 Gm. (1½ grains); bottles of 100 and 1,000.

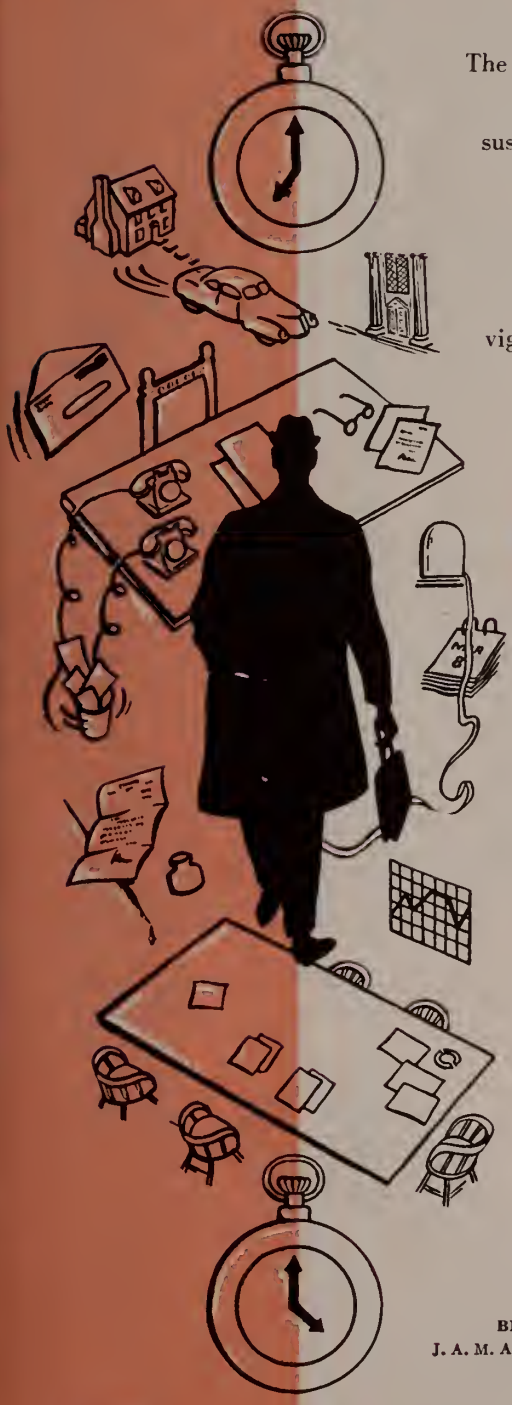
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ORETON-M

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BIBLIOGRAPHY: (1) Dunn, C. W., in discussion on Werner, A. A.: J. A. M. A. 127:705, 1945. (2) Dunn, C. W.: Pennsylvania M. J. 45:362, 1942.

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ORETON-M

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Complete description of the NEW TECHNIQUE *and physician's package will be sent upon request*

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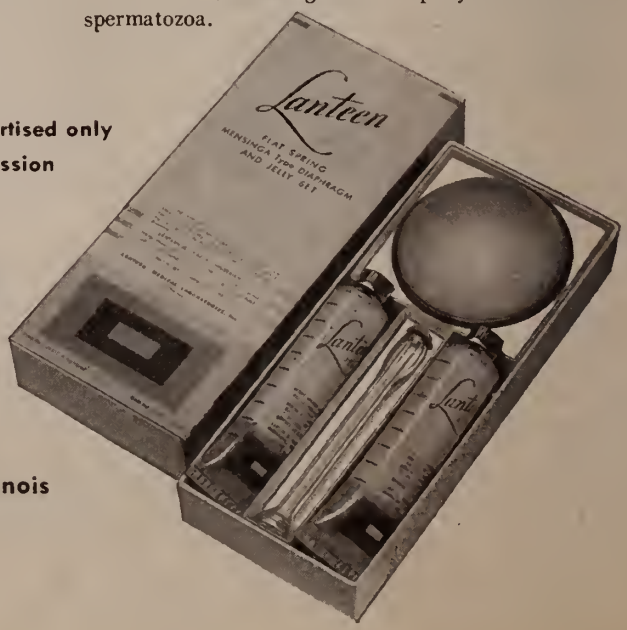
Easily Fitted—Collapsible in one plane only, Lanteen Flat Spring Diaphragm is easily placed without the aid of an inserter.

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S-M-A closely approximates mother's milk.

The S-M-A formula is well suited to modification, as the physician may wish, for special feeding problems.



Speed Recovery in

CERVICITIS

PENICILLIN VAGINAL SUPPOSITORIES

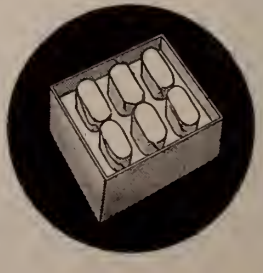
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Particularly useful in the medical and surgical management of cervicitis due to (or complicated by) penicillin-sensitive organisms.

ADVANTAGES ● Potent dosage at site of infection—each suppository provides 100,000 units of penicillin ● Painless administration ● Simplicity and convenience.

Early favorable response establishes the effectiveness of Penicillin Vaginal Suppositories Schenley.

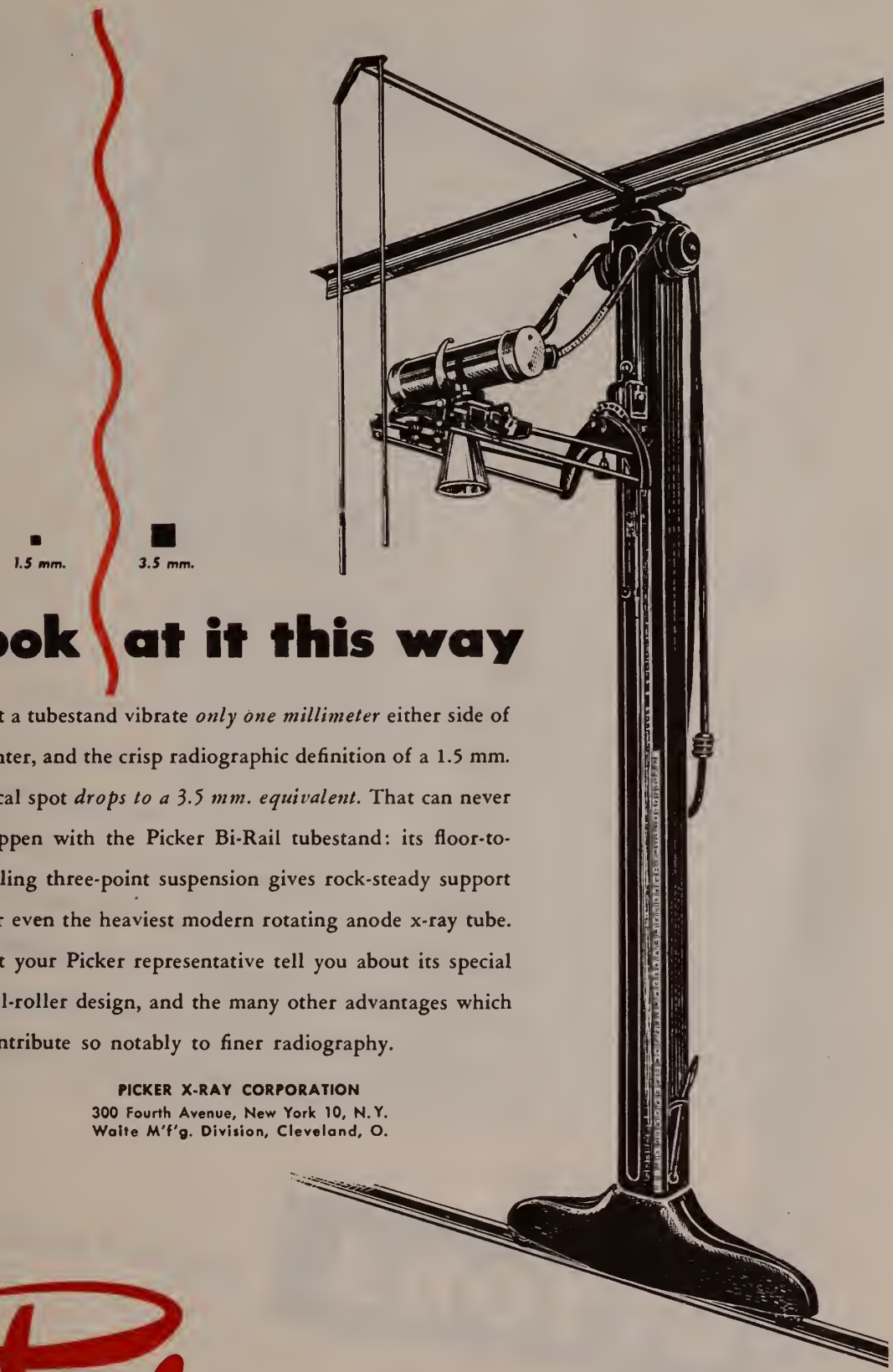
Suggested Dosage: One suppository on retiring or as required.



Supplied in boxes of 6 and 12

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"*. . . and its administration should be started in the first two weeks after birth.*"[1]

To initiate and maintain optimum growth . . . to prevent rickets . . . *early* vitamin D administration is urged. The wholly natural vitamins A and D from time-proved cod liver oil itself are provided for infant "drop dosage" in White's Cod Liver Oil Concentrate Liquid. Average antirachitic protection for infants costs about a penny a day. Liquid—Tablet—Capsule forms.

1) Marriott, W. M. and Jeans, P. C.: Infant Nutrition, St. Louis, The C. V. Mosby Co., 1941, p. 222.

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". . . older children require prophylactic doses of Vitamin D"[1]
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1) Kugelmass, I. N., Newer Nutrition in Pediatric Practice, p. 653, Lippincott, Phila., 1940.
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references: 1. Craig, C. F. and Faust, E. C.: Clinical Parasitology, Lea & Febiger, Philadelphia, 4th ed., 1945. 2. Gold, Harry: In Conferences on Therapy, N. Y. State J. of Med., Mar. 1, 1947. 3. Judd, E. S.: Am. J. Surg., 74:444, 1947. 4. Maya, C. W.: Proceedings Interstate Past-Graduate Med. Assembly of North America, 1942. 5. Nesselrad, J. P. et al.: Illinois Med. J., 81:4, 1942. 6. Christopher, F.: Minor Surgery, W. B. Saunders Co., Philadelphia, 5th ed., 1944.

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Ciliary motion carries away exudative debris in the upper respiratory passages. This action should not be inhibited by therapy of the common cold.

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Supplied in 0.25% solution, 1 oz. bottles. Also, 1% solution (when greater concentration is required), 1 oz. bottles.

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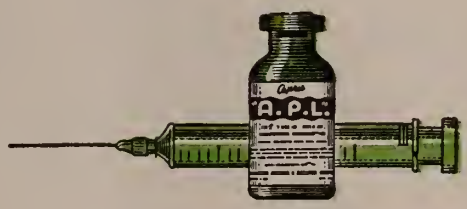
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For convenience and economy many physicians prefer the injection of high dosages of chorionic gonadotropin in a minimum volume.

* Morton, Joseph H.: Endocrine Features and Treatment of Chronic Cystic Mastitis and their Relation to Infertility, New York State J. Med.: *46*:1815 (Aug. 15) 1946.
Morton, Joseph H.: Chronic Cystic Mastitis and Sterility, J. Clin. Endocrinol.: *6*:802 (Dec.) 1946.

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are provided in one VITAMIN-MINERAL CAPSULE SQUIBB, *t.i.d.*



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Dicalcium Phosphate	2604 mg.
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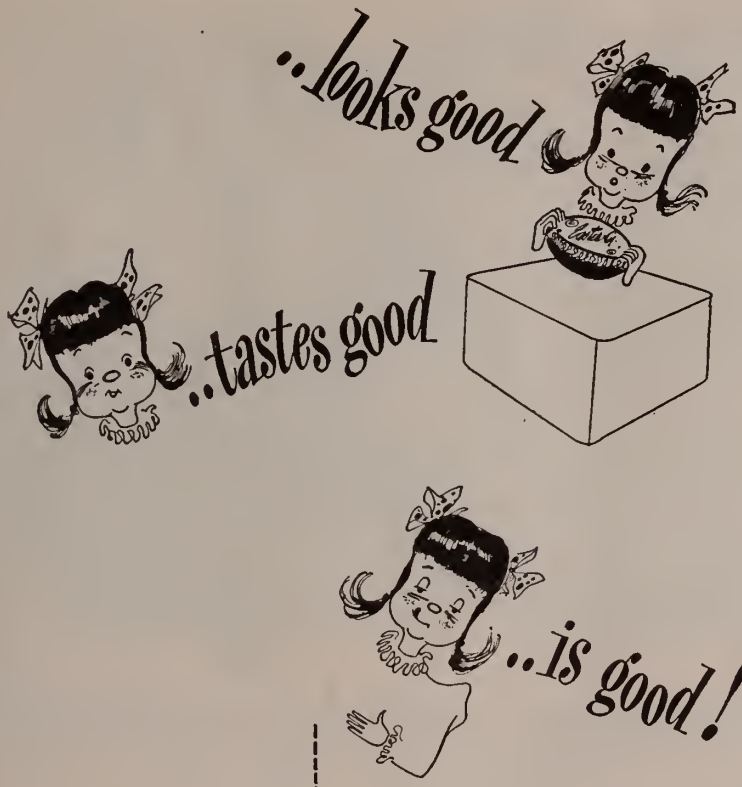
Vitamin-Mineral

CAPSULES

SQUIBB

1. "Recommended Dietary Allowances Revised 1945"; Reprint and Circular Series No. 122, August 1945, Food and Nutrition Board, National Research Council, 2101 Constitution Ave., Washington 25, D. C.

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Our livestock population turns many plants, in themselves inedible by man, into meat . . . man's preferred protein food.

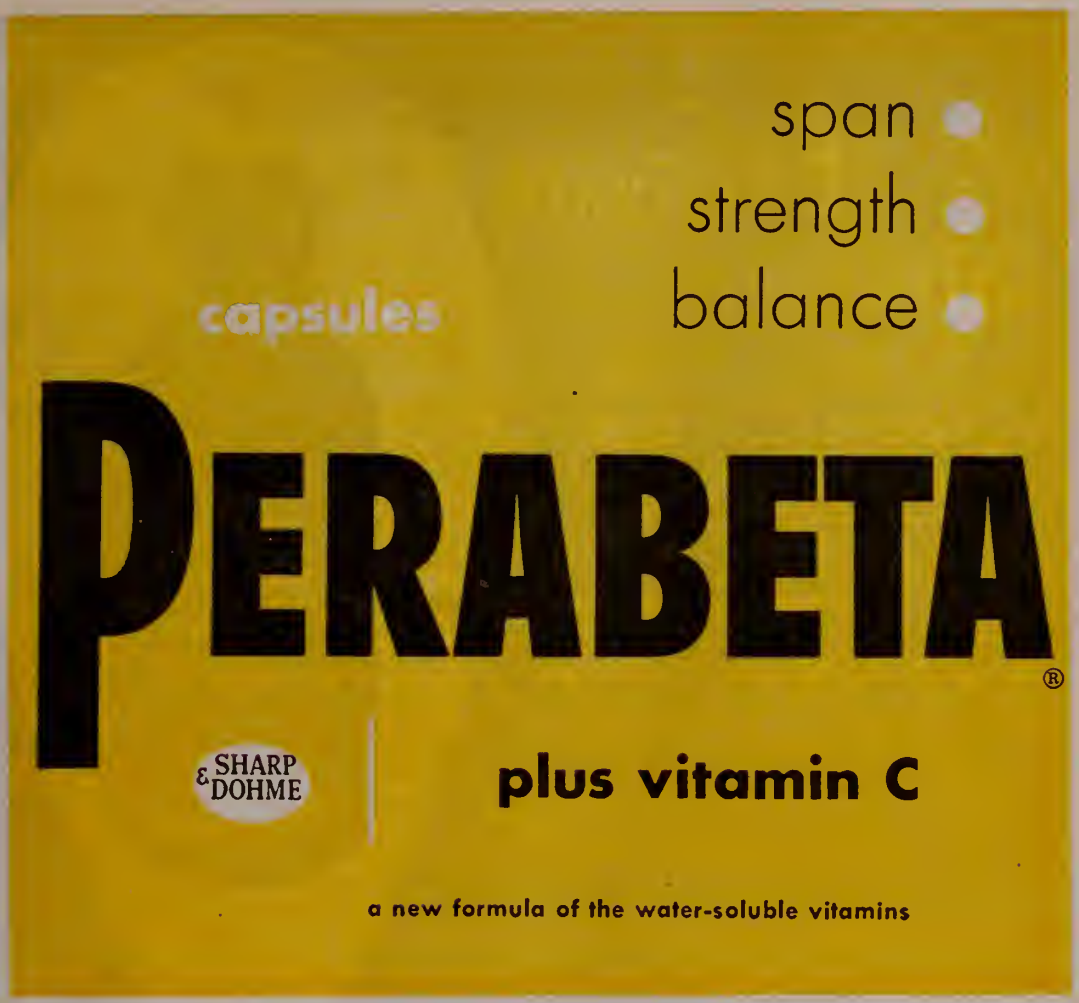
Thus livestock makes land, which otherwise would be useless for human nutrition, produce an outstanding protein food for man. This is of added importance today because of the world-wide scarcity of high-quality protein foods.

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AMERICAN MEAT INSTITUTE

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Each capsule contains:

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and other natural factors of the B-complex from 84 mg. of dried liver, including traces of biotin, folic acid and inositol.	
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As recommended by Jolliffe[3], the entire vitamin B complex is provided in the form of dried liver concentrate, not so much because it contains thiamine, niacin and riboflavin, "*but rather as a source of other B complex nutrients not yet synthesized . . .*"

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1. Spies, T.D., & Stone, R.E.: Southern Med. J. *40*:46, 1947. 2. Registered trademark, Sharp & Dohme. 3. Jolliffe, N.: J.A.M.A., *129*:613, 1945.

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Bibliography:

New Eng. J. Med. 234:468, 1946.
J. Invest. Derm. 8:11, 1947.
Annals of Allergy 4:33, 1946.
Science 105:312, 1947.
J. Bacteriology Vol. 53, June, 1947.

Literature on request.

CONSTITUENTS:
Hydrogen peroxide (90%) 2.5%
8-Hydroxyquinoline 0.1%
Especially prepared glycerol qs. ad. 120cc.
Supplied in four-ounce bottles

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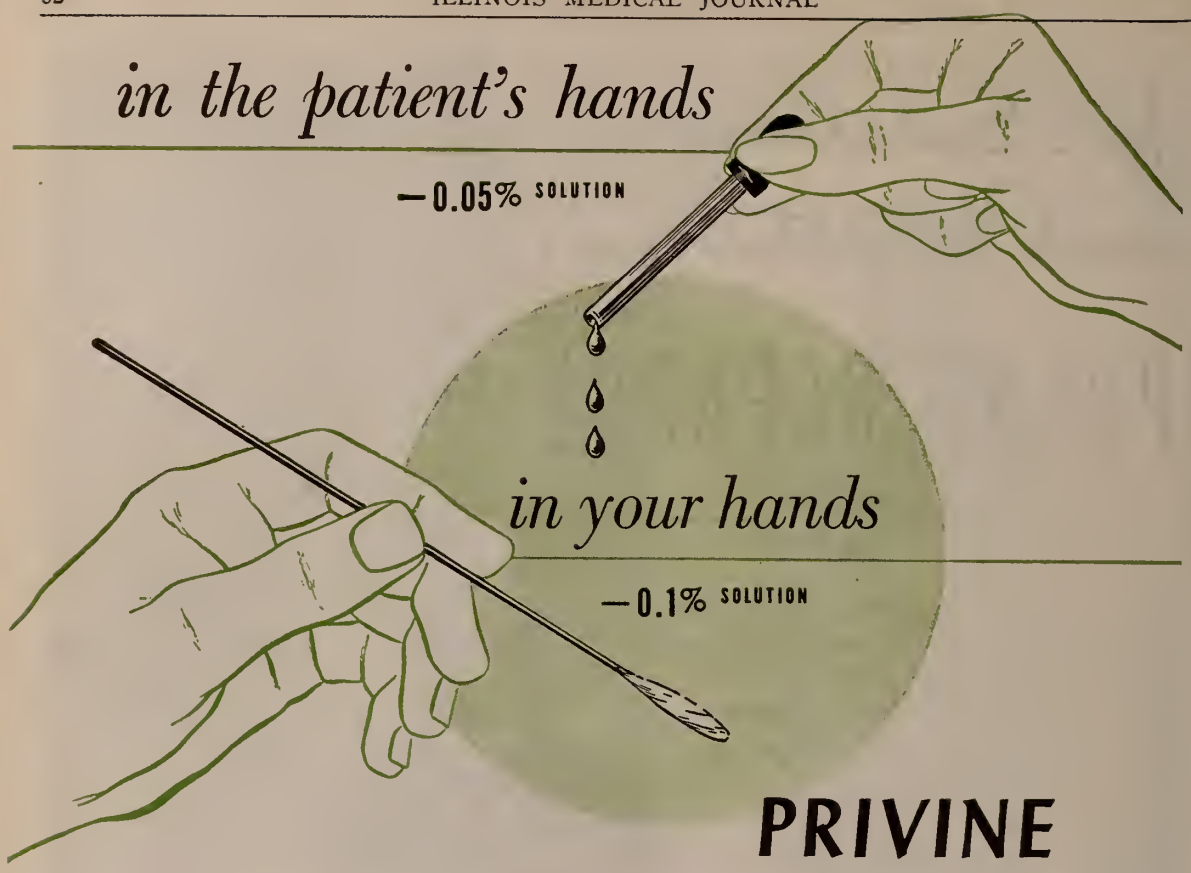


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in the patient's hands

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March, 1948

VOL. 93, NO. 3

The Illinois Medical Journal

Official Journal of the Illinois State Medical Society

EDITOR — Harold M. Camp. EDITORIAL BOARD — James H. Hutton, Chairman, Frederick H. Falls, Josiah J. Moore, Edwin M. Miller, Chauncey C. Maher, Harry S. Gradle, Harry Culver, Walter Stevenson, Raymond W. McNealy.

Editorials

THE FUNCTIONS OF THE COUNTY MEDICAL SOCIETY

It was our privilege recently to review many of the volumes of the Transactions of the Illinois State Medical Society, these published transactions going back to 1850 and published annually until 1899, when the Illinois Medical Journal became the official publication of the Society. There were actually two exceptions to the above statement for during the Civil War period there were no annual meetings and consequently no transactions for 1861 and 1862.

It was interesting to note in these early meetings that even the small component societies had occasional meetings, well attended and at which times current problems confronting the profession were given critical consideration. In 1852 at the annual meeting, Nathan Smith Davis recommended that a public policy committee be formed to tell the press and the public at large what the medical profession was doing to help minimize the hazards of illness. This, to our knowledge, is the first reference in this state at least to medical public relations.

There seems to be no doubt at this time that we are not only rapidly becoming over-specialized, but we are seeing far too many medical societies organized. With the many new "Associations", "Academies", "Colleges", and hundreds of special societies of all types being organized everywhere, the county medical society has momentarily in many instances been pushed into the background, and in many places meetings of these many new societies are limiting the regular meetings of the local parent organization.

In many communities which formerly had frequent meetings of their county societies, we now see an annual, or perhaps quarterly meeting, which too often is poorly attended. It is quite obvious that there is no time like the present to rejuvenate our county societies, and see that they once more become the local organization to speak with authority on health and medical problems, and that every group and individual in the respective communities again realize that when problems concerning health and medical care are under consideration, the proper group to consult is invariably the county medical society.

There has never been a time in the history of this great country when physicians should be more alert and competent to discuss before lay groups the many problems arising constantly relative to health and medical care than we see at this moment. Every county society should see to it that the membership as a whole is thoroughly conversant with these many problems, and that some members at least are ready to present their view-points before the many local organizations desiring information on these present day problems.

It should be understood that membership in the county medical society automatically gives membership in the state society, and likewise in the American Medical Association. At this time

there are approximately 140,000 members of county and state societies and of the A. M. A. This should be a most powerful group when it comes to speaking authoritatively on the many phases of health and medical care.

The County Medical Society, as the basic unit of our organization, should be considered in every community as the proper group to give information on medical care and health problems. Members of county societies should be better prepared than ever before to discuss current health, medical care or medical economic problems. With nearly 140,000 members of the American Medical Association, it has been stated that probably no more than 2,500 of this large group actually participate in presentations of this type.

Every county medical society should be thoroughly aware of problems existing in their own communities and likewise be prepared to discuss them freely before many lay groups in an effort to stimulate public interest in these problems and endeavor to solve them properly for the best interests of the citizenry as a whole. This, of course, applies primarily to problems concerning health and medical care including proposed projects to improve health conditions in the area. Matters concerning sanitation, the handling and distribution of milk and other food supplies, the desirability of recommending a county or multi-county health unit and many other problems prevailing in many areas.

All members of county medical societies should be thoroughly aware of the efforts to develop and promote voluntary prepayment medical and surgical care insurance and let everyone in their respective communities know that such insurance for their protection against the so called, "catastrophic illness" or accident can be procured at this time

The Woman's Auxiliary can likewise be of

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much service in every community, and its members should belong to the many clubs and organizations and be able to participate in the many deliberations, especially when subjects pertaining to health, medical care, and allied subjects are being discussed. Our attention was called recently to a clipping from a daily paper reporting on a meeting of the County Home Bureau, at which meeting the local Home Advisor discussed drugs used in modern medical care, and their indications. She did say, however, that these drugs should not be used unless they were prescribed by the family physician. It would have been much better and unquestionably more informative if this subject had been discussed by a member of the medical profession who could have told an interesting story of the developments in medical care in recent years.

Even small county medical societies can have relatively frequent meetings. They can have speakers from their own immediate area, or if preferred, can procure speakers through the services of the Illinois State Medical Society Committee on Scientific Service, 30 North Michigan Avenue, Chicago. This is a type of service which has been available for county medical societies in Illinois over a long period of years. The American Medical Association has a film library from which county societies may procure scientific films on many subjects. These may be procured from the A. M. A. Committee on Medical Motion Pictures, in the headquarters Building, at 535 North Dearborn Street, Chicago.

The Illinois State Medical Society is now arranging a Conference of County and Branch Society officers to be held at the Pere Marquette Hotel, Peoria, on Sunday, March 14. At this conference much information will be given to these officers as to the services for medical societies, which are available both from our own State Medical Society and from the American Medical Association. This is the first mid-year conference of its type to be arranged by this society, and if it proves popular, as it no doubt will, there seems to be no reason why a mid-year conference of society officers should not be arranged each year. It is hoped that all county medical societies in Illinois will arrange to have representatives at this important Conference, and a report of the Conference will be published in the April Illinois Medical Journal.

STATE-WIDE MATERNAL DEATH STUDY

A study of all maternal deaths in down-state Illinois has been undertaken jointly by the State Medical Society through its Maternal Welfare Committee, and the State Department of Public Health. The study will include the following features; 1) local hospitals will report promptly to the State Department of Public Health on the occurrence of a maternal death; 2) visits will be made by personnel of the Department's Division of Maternal and Child Health to attending physicians for the purpose of obtaining pertinent data on individual cases; 3) cases will be analyzed on an anonymous basis by the State Maternal Welfare Committee; 4) the Committee's findings will be transmitted to the attending physicians; and 5) compiled reports (also anonymous) will be presented to medical groups, hospital staffs, and in professional journals.

The need for such a state-wide study has been recognized for some time. The State Maternal Welfare Committee has recommended annually since 1937 that studies and analyses be made of deaths associated with pregnancy. Maternal deaths in Chicago have been studied since 1938 under the joint auspices of the sub-committee on Maternal Mortality of the Joint Maternal Welfare Committee of Cook County, and the Chicago Health Department. Similar studies have been carried on in 34 other States.

The medical profession can learn a great deal from the study of each maternal death: what factors were involved in causing the death? — was the patient at fault because she did not seek care or follow her doctor's instructions? — were medical and hospital care adequate for the particular case? — could the death have been avoided, and if so, how? Such a study can help the physician or the hospital to prevent a future occurrence under similar circumstances. In a similar manner, dissemination of factual, anonymous information through professional channels can transmit the benefit of these experiences to other physicians.

Through this study the physicians of this State have the opportunity to patricipate in an important method of reducing maternal mortality. The study will benefit both the physicians and their patients. It is hoped that it will also stimulate local medical societies and hospital staffs to include thorough discussions and analyses of maternal deaths in their activities.

ADOPTION IN ILLINOIS

A Warning to Physicians

Physicians or hospital administrators occasionally undertake to give a child, unwanted for some reason by its natural parents, to persons they consider worthy to adopt the child.

Such an action by a physician, viewed in the most favorable light, may serve humane and entirely commendable purposes. It may, for instance, protect an unmarried mother from public disgrace — often a girl the physician has cared for from birth. It brings the joy of children into a childless home. It assures the child of care in a loving family rather than a public institution. The physician therefore may consider himself justified in assuming the responsibility.

However, there is an important catch in it:

Such action by a physician is a misdemeanor under the Child Welfare Act of Illinois which is punishable by a fine of $25 *to* $500 *or imprisonment up to one year, or both. The penalty may apply to an individual, such as a doctor, or to the officers of a corporation, such as a hospital.*

The act provides that only an agency licensed by the Department of Public Welfare may receive or place a child in any hands but those of its natural parents or blood relatives. Hospitals and their officers and employees are specifically barred by law from acting as child placement agencies and may not release a child to persons other than the parents, a licensed agency or a court, without approval of the Division of Child Welfare.

Under Illinois law, adoption can be authorized only by the Circuit or County Courts and all known data about the child, its parents, guardians and relatives, the persons proposing to adopt the child, and the agency having its custody, must by law be made a matter of court record. The child must also spend a six-month probationary period in the home of the adopting family before the petition for adoption is filed.

After the petition is filed, the court must designate a suitable agency to make a full social investigation of the case in order to determine that the petitioner is a worthy person to adopt the child. If all is found satisfactory, a public hearing is held and the adoption approved. The records of any case — such as one involving illegitimacy — may be impounded for secrecy.

Adoption is a complex process, and there are many social, psychological, financial, religious, legal, racial, family and other factors which determine its success or failure. However, experience has taught that proper isolation and evaluation of these factors can help assure success in adoptions. The study should be made before an irrevocable step is taken. Such study requires cooperation on the part of the medical profession, the hospital, the parents, natural and adoptive; the social workers and the official agencies, such as the Divison of Child Welfare and the courts. The physician should contribute his share of cooperation.

Full investigation, for instance, would eliminate such unfortunate episodes as a recent case in which a child proved to have an entirely different racial heritage than was originally claimed for it. And, while most cases of adoption handled quietly by physicians are undoubtedly as successful in outcome as they are humane in motive, there are nevertheless a certain number that go wrong and seriously so.

Recently in Chicago, for instance, a woman physician was found to have placed four children in the home of a fellow physician whose wife was beyond question not the proper person to care for them or her home. Most illegal adoption cases are not prosecuted by the Division of Child Welfare, but this was so flagrant that a conviction was obtained and the doctor was suspended from the Chicago Medical Society. Meanwhile three of the four children have not yet been identified.

The only legal and proper course, then, for a physician faced with one of these problems is to turn the whole question over to a properly licensed agency, experienced in the various phases of the problem. In areas where such agencies do not exist, a regional child welfare supervisor in one of the seven regional offices of the Department of Public Welfare in Rockford, Chicago, Peoria, Springfield, Urbana, East St. Louis, or Carbondale, may be called on for advice and assistance. Or information, including copies of the laws involved, may be obtained from Edna Zimmerman, Superintendent of Child Welfare, Department of Public Welfare, Springfield.

By so informing himself and obtaining a valuable ally, the doctor not only saves himself time and trouble and avoids the possibility of a clash with the law, but he also assures the prospective parents of full knowledge and guarantees the

child's future as far as possible, while at the same time giving the natural parents proper protection.

SEND IN YOUR QUESTIONS

In this issue of the Illinois Medical Journal, we are publishing questions which have been submitted by members of the Society relative to unusual medico-legal problems together with the answers which have been carefully prepared by our own Legal Counsel. There are many problems arising in the practice of Medicine which are more than perplexing to the individual who faces them.

If information is desired concerning care to clients of the Illinois Public Aid Commission, we have been assured that the I. P. A. C. Director will give the proper replies. Then frequently, problems arise in connection with Workmen's Compensation, and controversies occasionally develop in connection with payment for services in these cases, especially since Illinois is one of those states which does not have an approved fee schedule for care of compensable cases.

At this time, a number of interesting questions have been received and will be answered in the new department in the Journal. Those which are presented in this issue are relative to the work of the Coroner. The preparation of the answers has required a considerable amount of time and energy on the part of the General Counsel.

Any member of the Illinois State Medical Society may submit his questions to the Editor at either the office in Monmouth or the Chicago office at 30 North Michigan Avenue, and they will receive prompt attention. When the reply is desired by mail prior to publication, this will be done. The name of the member submitting questions will not be mentioned in the Journal. We hope that this new departmental addition to the Illinois Medical Journal will become popular and that it may be carried on as a regular feature in the future.

Preventive medicine requires not only the cooperation, consent, and understanding of the individual who is to be benefited; oftentimes he must take the initiative — he must realize that it is just as important to seek advice from his physician on how to keep well as it is to call upon the physician for help when illness strikes. Med. in the Changing Order, Rep. N. Y. Acad. Med. Comm., Commonwealth Fund, 1947.

In the Proposed New Bedside Manner



Courtesy, The Chicago Daily News

THE MEDICAL BENEVOLENCE FUND

During recent weeks, additions to the Medical Benevolence Fund of The Illinois State Medical Society have been received in the Secretary's Office. Several County Medical Societies have sent in checks from their funds and several members have likewise sent personal checks, all of which are greatly appreciated and have been officially acknowledged. Although the drive has been on for nearly a year to increase the Benevolence Fund, the returns have been received from less than 10% of the membership of this Society.

The Committee on Medical Benevolence has received applications for assistance from several in recent weeks, each of these applications have been thoroughly investigated and several additional beneficiaries have been added to our gradually growing list. It is the desire of this Committee, as recommended by the House of Delegates and the Council of the State Medical Society that all worthy candidates for assistance such as is afforded by the Medical Benevolence Plan who can qualify under the prescribed essentials for benefits, receive vouchers as long as the need exists.

Within a short time letters will again be sent

to the membership as a whole, relative to this worthy cause, and in the continued effort to build up the Medical Benevolence Fund until eventually the income from the fund will be sufficient to care for all needs of beneficiaries. Members desiring to contribute to this fund are again reminded that they may send in their checks to the Secretary, Illinois State Medical Society, Monmouth, Illinois, and their donations will be promptly acknowledged.

SCIENTIFIC MOVIES AN ADDED FEATURE FOR 1948 MEETING

For the first time at the Illinois State Medical Society Annual Meeting, May 10-12, Palmer House, scientific movies will be shown as part of the scientific exhibits. A special room with equipment and operator will be provided. A schedule of the time and subject of the movies will be in the program. Those interested in showing an original movie please make application immediately with Director of Exhibits, John A. Mart, M.D., 700 North Michigan Avenue, Delaware 3022.

MEDICAL AND SURGICAL SUPPLIES DESPERATELY NEEDED IN WAR-DEVASTATED AREAS.

Continued aid in the form of medical and surgical supplies from America is needed to prevent widespread suffering and death among the peoples of war-devastated areas throughout the world. The undersigned earnestly request all members of our profession to help us provide such aid through the Medical and Surgical Relief Committee, Inc.

During the past seven years, with little publicity and modest finanical support, this Committee has provided more than a million dollars worth of desperately-needed medical, surgical and dental supplies and publications to stricken areas overseas. These materials are sent to hospitals, physicians and dispensaries giving *free* medical care to the needy.

Our colleagues in Europe and the East are still faced with an appalling lack of basic medical equipment. Some have not even seen a medical journal or textbook printed since 1939, and are woefully uninformed of many of the latest medical advances.

We are able to do a great deal to alleviate this situation through the Medical and Surgical Relief Committee which receives, sorts, reconditions and ships material — ranging from physician's samples to used instruments — in response to authenticated appeals from overseas.

The items most consistently requested and most vitally needed are:

Adhesive tape, Ampoules — all types, Anesthetics (local, general), Antiseptics, Aspirin, Aspirin combinations, Autoclaves, Baby—bottles, cereals, clothes, food, nipples, Cod liver oil, Cotton — gauze — all forms, Dietary supplements, Germicides, Hospital ware, Hot water bottles and syringes, Hypo needles and syringes, Liver and iron capsules, Microscopes, Penicillin—(Crystal, Ointment, Tables), Quinine—(Tablets, Capsules), Rubber sheeting and tubing, Santonin and combinations, Scientific apparatus, Sedatives, Standard medications for various conditions, Sterilizers, Streptomycin, Sulfas — tablets and liquids, Surgeons gloves, Surgeons needles, Surgical instruments, Thermometers — (Fever — F. or C.), Vitamins — all types and strengths for children and adults.

— and the most pressing need of all is for recent medical, surgical and dental textbooks and journals.

Please forward any such supplies which you and your hospital can donate to this great need to:

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Room 328, 420 Lexington Avenue
New York 17, N. Y.

We urge you to lend your support to this vital work.



ATTEND Your ANNUAL MEETING, MAY 10, 11, 12

Medical Economics

The Medical Economics Committee — Chauncey C. Maher, Chmn., 6 North Michigan Avenue, Chicago, Edwin S. Hamilton, V. Thomas Austin, Emmet B. Bay, Jay McDonald Milligan, George Halperin, Marie Wessels, Thomas C. Browning, Roland R. Cross, Milton E. Bitter, Edwin F. Hirsch, Ford Hick, Carroll C. L. Birch, Hubert L. Allen.

PARTNERSHIPS IN MEDICAL PRACTICE

In our present era, the practice of medicine may be classified into two main types, individual and partnerships. Individual practice has been predominant for centuries and the partnership is a modern development.

The physician who has practiced alone has prized his individuality to a significant degree and usually defends his premise with real fervor. Likewise, patients have centered their medical needs in one physician's office and on occasions have been articulate in their praise of the "old fashioned family doctor." Much has been said about the patient-physician bond, which has been considered a corner stone of medical practice. The respect for this bond has placed an unusually heavy responsibility on the family doctor. The pathology under his jurisdiction included minor and major disease ranging from common colds, pneumonia, skin lesions, pregnancies, emotional problems, fractures, and serious surgical defects. An increased interest by certain physicians, who developed particular ability in some of these fields, has produced from the ranks of the family doctors, the specialist, first as an individual and later in partnership.

The partnerships which are best known are the large institutional groups, the Mayo's, the Crile's, the Lahey's, and others sponsored by University Medical Foundations. Smaller groups of the clinic type with most specialties represented have developed throughout the United States and particularly in the Middle West. On down the scale are simple partnerships, of two or three physicians, engaged in general practice or in a specialty. The merits and demerits of partnership practice have occasioned much discussion, principally concerned with the service rendered to the patient or the public. *More emphasis* might be placed upon the benefits of this type of practice to the doctor himself. The subject has many facets, bearing upon his economy, his health, his hours of work, and his general well being.

Partnership practice, in either large or small groups, allows a wider range of usage of the many adjuncts to the ordinary practice of medicine. Few individuals enjoy a practice large enough to permit the purchase and maintenance of X-ray equipment, laboratory facilities, adequate instruments, and a technical personnel to aid him in his routine medical work. These may not be necessary to him in the diagnosis and treatment of the common cold or other minor medical ailments, but neither do the fees of these types of pathology contribute greatly to his income. Many individual physicians in recent years have felt these disadvantages when their practice was in the same area with a well equipped clinic.

In partnership practice, the simple problem of vacations is readily soluble. The individual physician has often neglected to take his vacation, year after year, because he has been unable to shift readily his responsibility of patient load to a fellow practitioner and he cannot ignore the income loss from his absenteeism. In a partnership, these difficulties are more easily obviated.

The working hours of the average physician, specialist, or general practitioner have been excessive. The demands of the public upon the family doctor's time is a matter of common knowledge. Sick calls at night, telephone calls at his dinner

hour, emergency calls at any time during the day or night left him little or no leisure. The effect upon his health probably no one knows. The physician in partnership practice fares much better than his single brother. His hours are more orderly, his responsibility for emergencies more limited and even his telephone practice better arranged.

Partnerships in special fields also have certain advantages to the doctor. The obstetrician, the general surgeon, the fracture specialist, practicing alone even with young assistants play laborious roles. To be called from their beds, miss their office hours, rush through their meals, is more the rule than the exception. In the two or three men partnerships which are evolving in the specialities, much of this is changed. On first consideration, it would seem unusual for Mrs. Doe to engage an obstetrical partnership to deliver her and graciously accept whichever one was on duty the night or day of her delivery. Experience, however, has shown that this is accomplished, not only in the obstetrical field but in others.

The economy of the doctor has been a subject of serious consideration and also of jest. His savings, large or small, in former years and now impaired by income tax, were too frequently the objective of blue sky promoters. There have been some physicians who invested wisely in farm lands, business property, conservative stocks and bonds, or insurance annuities, but many have ended their careers with a house or cottage and eked out a penurious existence with a few uncritical patients. The physician in the partnership, on the other hand, faces the twilight of his career with an equity in a substantial practice, buildings and equipment with a trained younger element to carry on, and provide him with a reasonable income. During these emeritus years, he, on the other hand, may furnish mature advice to his younger colleagues that only experience can develop.

The young man entering practice today is confronted with these two modes of practice. Perhaps, he has seen his father, or his father's doctor practice alone, with few vacations, long hours, with or without commensurate financial return, but usually gaining a place of prestige in the community. Perhaps, he may have been told of that patient-doctor bond that was so important in that practice. He can also see the type of practice of the partnership, major and minor, and investigate if he chooses, the details of such a medical life. His choice will have much to do with his destiny.—C. C. M.

APPOINTMENT SHEET IS HELP FOR BUSY DOCTOR

Eliminating confusion and mistakes in recording appointments has long been a problem in the medical profession. Accurate records provide a permanent day-by-day account of appointments. It is essential that house calls, patients admitted and discharged, as well as miscellaneous information, be recorded clearly and accurately to assist in writing monthly statements and to provide a permanent running record.

To solve these problems, Professional Record Service has developed a new loose-leaf appointment sheet. It was designed, after intensive research in the medical profession, to determine the problems and exacting needs of doctors.

This new record sheet fits any standard three-ring binder. It divides the day into 15 minute intervals with ample space for patient's name and miscellaneous notations. Its convenient 8½" x 11" size provides additional space for an entire day's activities.

More than a year's supply may be purchased for as little as $4.08 including tax. Samples will be sent upon request. Address all inquiries or orders to Professional Record Service, P.O. Box 114, Bloomington, Illinois.

Medico-Legal Briefs

Answers to medico-legal problems of general interest submitted to the Editor will be answered in this department.

PROBLEMS IN CORONERS' CASES

I

QUESTION: The suggestion is made that death certificates of members of the Christian Science faith are not reliable from a statistical standpoint, and the question is asked whether such certificates could be marked appropriately so as to be disregarded in the compilation of vital statistics.

ANSWER: Our health laws make no special provision for reporting the deaths of members of any religious faith. The forms of certificates now prescribed make no inquiry as to the religion of a decedent, and it would probably be unwise for a coroner to include such information, unless the law were to be amended or the prescribed certificate form changed, to authorize it. The inclusion of such data might well be held an unwarranted invasion of personal rights, and a coroner could not reasonably be expected to assume responsibility in such a case without clear lawful authority. Granted that certificates of death as to such individuals are statistically unreliable, some health authorities believe that the number is not so great as to present a substantial problem.

II

QUESTION: What is considered the maximum length of time between the last attendance by a physician and the death of a patient, before the death becomes a coroner's case?

ANSWER: Since our courts have never passed upon this question, no positive answer can be given. Each case must be judged according to its own circumstances. When it appears that a decedent had never had any medical attention, or that his death was immediately preceded by several years of good health without having received medical care, the undertaker would clearly be obliged to notify the coroner, and the latter would have the right to make a preliminary investigation to determine whether any "violence, casualty or undue means" were involved. Beyond such clear cases, no hard and fast rule can be stated. Whether or not a person died "without medical attendance", within the usual and ordinary meaning of the term, would depend upon such factors as the nature of the final illness, whether acute or a chronic condition of long standing, upon age and general condition, as well as whether or how recently the deceased had seen a physician with regard to the disease or accident resulting in death. For the protection of both the undertaker and the coroner, doubts should probably be resolved in favor of a fairly strict construction of the term "without medical attendance". But coroners should bear in mind that unless a preliminary investigation discloses reasonable grounds to suspect that violence, casualty or undue means were involved, the coroner has no right whatever to conduct an inquest.

III

QUESTION: Is the information appearing on the covers of the coroner's death certificate book reliable?

ANSWER: Yes. The digest and summary of the laws relating to coroners and vital statistics, as printed on the covers of the coroner's death certificate book, is accurate and sufficiently

(*Continued on page* 133)

Correspondence

SIX LECTURES ON CANCER OF THE ORAL CAVITY

A new postgraduate course of six lectures designed to present recent advances in cancer of the oral cavity will be offered by the University of Illinois college of dentistry, in cooperation with the Illinois division of the American Cancer Society, starting Wednesday, March 31.

The course has been organized in response to growing recognition of the role of the dentist in cancer control and oral diagnosis.

Dr. Bernard G. Sarnat, acting head of the department of oral and maxillofacial surgery, will be in charge of the course. The course will be offered over a period of six consecutive Wednesdays from 7:30 to 9:30 p.m.

The course will place emphasis on the characteristics and differential diagnosis of oral lesions and will include consideration of cancer research, surgical treatment, and surgical and prosthetic reconstruction. The final period will be devoted to a round table discussion.

The course is expected to be of value to not only the dentist and physician who are in general practice, but also the oral and maxillofacial surgeon and the otolaryngologist. The tuition charge for the course has been waived, through the courtesy of the Illinois division of the American Cancer Society.

Further information and registration for the course may be obtained by writing Dr. Isaac Schour, associate dean in charge of the postgraduate school, 808 S. Wood Street, Chicago 12, or calling him at Monroe 3900, extension 375.

AMERICAN BOARD OF OPHTHALMOLOGY PRACTICAL EXAMINATIONS — 1948

Baltimore, May 20—25th
Chicago, October 6—9th

Written Qualifying Tests will be held annually, probably in January of each year. Applicants for the January 1949 Written Qualifying Test must be filed with the Secretary before July 1, 1948.

A supplement of diplomates from January 1947 — January 1948 will be sent gratis to all purchasers of the Board's Directory. This supplement is arranged alphabetically and geographically. No biographical material is included.

Important: Diplomates are urged to keep the Board office informed of all changes of address, so that the files can be kept up-to-date.

Officers For 1948. Drs. Goar, Chairman; Dunnington, Vice-Chairman; Beach, Secretary-Treasurer; Dunphy, Assistant Secretary.

COOPERATION IN CANCER REFRESHER COURSES COMMENDED

The Executive Committee, Illinois Division, American Cancer Society, Inc., at a meeting on January 21, 1948, unanimously passed the following resolution:

Be it resolved that the Board of Directors, Illinois Division, American Cancer Society, Inc., express their very deep appreciation of the cooperation and assistance in the conduct of cancer refresher courses for Illinois physicians to all

(*Continued on page* 133)

State Department of Public Health

EFFECT OF NITRATES IN RURAL WATER SUPPLIES ON INFANT HEALTH

JAMES G. WEART

Chemist, Division of Sanitary Engineering
Illinois Department of Public Health

Infant methemoglobinemia, with possibly marked cyanosis, may result from the use of feeding formulas incorporating water which contains the nitrate ion (NO_3) in toxic amounts. This syndrome, first reported by Dr. H. H. Comly,[1] of Iowa, in 1945, has since been frequently observed in central and southern Illinois.

That this disease is a problem of importance to infants in rural areas is indicated by our finding that Illinois well waters containing large amounts of nitrates occur with a frequency never before anticipated. Our results are in general agreement with those from Iowa,[2] where rural water supplies are obtained under geological conditions quite similar to those in Illinois.

Of a total of 5660 samples of water from private water supplies of all types and from all sections of the state, 20 per cent had a nitrate nitrogen content of more than 10 parts per million. This total includes a large number of samples of low nitrate content from the northeast quarter of Illinois, where rural water supplies are generally obtained from drilled wells in the glacial drift or from limestone formations.

In the rest of the state, where most rural water supplies are obtained from relatively shallow dug or driven wells (seldom more than 40 ft. deep) waters with toxic amounts of nitrate ion are much more common. In Sangamon County, (Springfield-county seat) more than 40 per cent of the waters from rural wells contain more than 10 parts per million of nitrate nitrogen, and more than 25 per cent contain more than 100 parts per million, an excessive amount. In Clinton County (Carlyle-county seat) where the samples examined were quite representative of the entire area, more than 75 percent of the waters from rural wells contained in excess of 10 parts per million. In this area, the waters with excessive amounts of nitrate (over 100 parts per million) made up 20 percent of the total samples.

If Comly's suggestion that 10 parts per million of nitrate nitrogen be considered the maximum that can safely be used for infant feeding, it is quite evident that the indiscriminate use of rural water supplies for infant feeding formulations may be unfortunate, and expose rural infants to an avoidable and unnecessary danger.

In view of this wide distribution of high nitrate rural water supplies in Illinois, it is recommended that no water proposed for the preparation of feeding formulas for infants should be prescribed or used unless the nitrate content of the water is known to be less than 10 parts per million, the maximum safe concentration on the basis of information available at the present time.

With but two exceptions, the public water supplies thruout the state are satisfactory from the standpoint of the nitrate content. In the case of the two small communities where the nitrate content of the public water supply exceeds this figure, the village officials and the local physicians have been already notified.

A simple colorimetric test for nitrates devised by Dr. R. H. Bray[3] can be used to determine quickly the approximate nitrate content of water.

Only one dry powder is used as a reagent, and the only equipment necessary is a test tube or spot plate. The prepared reagent and instructions for the test are available at moderate cost from Illinois Soil Testing Laboratory, 102 North Broadway, Urbana, Illinois or Urbana Laboratories, 406 North Lincoln, Urbana, Illinois.

The nitrate content of water will be determined by the laboratory of the Division of Sanitary Engineering, Department of Public Health, Springfield, Illinois, on samples of water submitted for that purpose. Such samples should preferably be submitted in the sterile sample bottles furnished for sanitary analyses by this Division, but any clean bottle will do. At least two ounces of water are necessary.

Emergency treatment of acute cases of cyanosis resulting from methemoglobinemia consists in the intravenous injection of 1 percent methylene blue solution, using approximately 1 ml. for each kilogram of body weight. Recovery is reported to be dramatic.

A positive diagnosis of methemoglobinemia involves the determination of both total and functioning hemoglobin. The difference between the two will be the amount of methemoglobin, which normally has a very low value.

That the water used was the causative factor has been established in a number of cases by the simple change of the water supply.

In agreement with the studies made in Iowa, we can find no correlation between the nitrate content of these waters and the sanitary quality, as demonstrated by a sanitary survey and the standard bacteriological test for coliform bacteria. We have no satisfactory explanation for the occurrence of these large amounts of nitrate.

There is neither a practical treatment that will remove the nitrates from the water, nor any method of well construction that will obtain better water. In those areas where high nitrate waters occur, they are, as a rule, the only waters available for rural use.

TYPICAL CASE HISTORIES

1—April 23, 1947, Dr. Walter M. Whitaker. The Quincy Clinic, Quincy, Illinois.—"I am forwarding you under separate cover a sample of water taken from a deep well in an adjoining county. I am particularly interested in the determination of the nitrate content of this water since it has been used to prepare the formula for an infant who at the age of three or four weeks, developed intermittent cyanosis for which no anatomic cause could be found and which was related, definitely, to a high methemoglobin blood value. The infant's cyanosis cleared up after two or three days of oxygen inhalations in the hospital, only to return after the baby had been home, and the well water again used in preparing its formula."

The nitrate nitrogen content of this water was 120 parts per million.

2—February 11, 1947, Dr. John D. Stull. The Olney Sanitarium Clinic, Olney, Illinois.—"This baby was admitted to the Hospital, February 9 complaining of cyanosis. She was born December 26, 1946 in the hospital. Breast feeding was attempted and the baby was on the breast almost exclusively until about two weeks of age. From that time until the time the baby was 4 weeks of age, she was partially breast fed, but increasing amounts of SMA formula was given so that by the 22nd of January she was almost exclusively on an SMA formula. On about January 22 or 23 the baby was taken on a trip to Kentucky. While enroute, the baby began to be cyanotic and by the time she was to her destination had developed very marked cyanosis. She was seen by a physician, who gave her one x-ray treatment to the thymus and admitted her to the hospital. In the hospital, the baby was kept in oxygen for about 2 days time and during that time the cyanosis improved tremendously. An x-ray of her chest at that time is said to have been normal. Following discharge from the hospital, the baby visited in Kentucky until February 6 on which day she returned to Olney. On February 8 in the evening the mother noticed a recurrence of the cyanosis. This became more marked during the following 24 hours until admission to the hospital here. At the time of admission, the physical examination was entirely negative with the exception of a moderately severe cyanosis. The baby did not appear seriously ill, though the breathing was somewhat shallow. There was no sign of any infection. The temperature was normal. Fluoroscopy of the chest revealed normal heart shadows. There was no sign of enlargement of mediastinum. The possibility of methemoglobinemia was considered and felt to be the most likely diagnosis. The baby was given oxygen in rather small amounts. In the absence of methylene blue for intravenous use, the baby was given 15 mgm. of methylene blue by mouth every 4 hours beginning at midnight. Eight hours later her color was tremendously improved. Red blood count showed 3,700,000 cells with a hemoglobin of 80%. She was discharged with instructions to use water from the Olney city water supply. Until the baby's admission here, she had been using water from a well. The water had been boiled. The parents did not take any water with them on their trip so that for the two weeks that the baby was in Kenucky she was on a separate water supply. I feel virtually certain, in view of the findings of nitrates to the extent of 110 parts per million of water in the sample we submitted to you, that this is a case of methemoglobinemia and secondary to nitrate ingestion. Unfortunately, we do not have a method for determining methemoglobinemia and, lacking the

intravenous methylene blue, we were unable to get the dramatic response which would have clinched the diagnosis."

The nitrate nitrogen content of this water was 115 parts per million.

3—January 8, 1948, Dr. Carl E. Pruett, Effingham, Illinois. Twins—one fatality. "It seems that such a causative factor in cyanosis has never before been recognized in this vicinity. However, it seems to be the only logical explanation in this case which proved fatal for one of the twins which was the one which had been home longest, and therefore had the more exposure and home formula."

The nitrate nitrogen content of this water was 122 parts per million.

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1. Comly, H. H.: Cyanosis in infants caused by nitrates in well water. Journal American Medical Association; 129: 112-116, 1945.
2. Johnson, G., Kurz, A., Cerny, J., Anderson, A., and Matlack, G.: Nitrate levels in water from rural Iowa wells. Journal Iowa State Medical Society; 36: 4-7, 1946.
3. Brya, R. H.: Nitrate tests for soils and plant tissues. Soil Science. 60: 219-221, 1945.

MEDICO-LEGAL (Continued)

complete to serve as reliable guidance to coroners in almost every case. Any questions arising which are not clearly or fully covered should be referred to the Illinois Department of Public Health, which administers these laws.

CANCER COURSES (Continued)

officials and participants in the program at the Northwestern University Medical School, the University of Illinois Medical School, the Loyola University Medical School, Mercy Hospital, Michael Reese Hospital, and the University of Chicago Medical School. The fourth such course has been completed and a total of nearly 150 physicians have attended to date. This program emphasizes early diagnosis and treatment of cancer and must inevitably have a far reaching effect on cancer control activities in Illinois.

Edward Foss Wilson,
Chairman, Executive Committee

SWIFT AND CO. GRANT FOR AMINO ACID STUDY AT U. OF I.

The University of Illinois college of medicine has received a nutrition fellowship grant of $3,500 from Swift and Company, Chicago, for the study of amino acids in the blood under several conditions of disease.

The project will be conducted by the department of surgery, under the supervision of Dr. Tilden Everson. The grant covers studies for the current year.

U. OF I. GETS $7,920 GRANT TO STUDY "LIPASE A".

A research grant of $7,920 has been received by the University of Illinois college of medicine from the Upjohn Company of Kalamazoo, Mich.

The grant will be used to evaluate the use of pancreatic enzyme, "Lipase A," in the treatment of patients who have the symptoms of diarrhea due to pancreatic deficiency as to absorption and digestion of fatty foods.

The study will be conducted by the department of medicine, under the direction of Dr. M. H. Streicher.

STUDY NEW SULFONE PRODUCT; HOFFMAN—LA ROCHE GRANT TO U. OF I.

A research grant of $2,700 has been received by the University of Illinois college of medicine from Hoffman-La Roche, Inc., of Nutley, N. J. The grant will be used for the study of the use of a new sulfone product, intestinal antiseptic, in the treatment of chronic ulcerative colitis.

The study will be conducted by the department of medicine, under the direction of Dr. Michael H. Streicher.

Before marriage this question should be put: Will you continue to be satisfied with this woman's conversation until old age? Everything else in marriage is transitory.

—Nietzsche

Original Articles

THE DIAGNOSIS OF ACCESSIBLE CANCER

Danely P. Slaughter, M.D.
CHICAGO

By the term (interpolate) accessible cancer is meant a malignant tumor so situated in the body that it is visible or palpable. By extending this definition to include tumors that can be visualized with the aid of instruments, with or without optical systems, it is apparent that most of the cancers affecting the human body are "accessible" in the sense that they can be visualized or palpated. Therefore, most cancers should not be difficult diagnostic problems.

Because of the many variables affecting the incidence of cancer, such as sex, race, age, and even geographic areas, it is difficult to arrive at an exact percentage incidence of cancer in various anatomic locations. Table 1, taken from the United States Public Health Bulletins of 1944 gives a fair overall estimate of cancer incidence for the white population of the United States as a whole. This table is based on conservative estimates gathered from many sources, and it is not a synthesis of reported death rates of cancer, which would be an entirely different approach, with different end result figures. This discussion is directed toward the clinical diagnosis of cancer, not autopsy recognition.

A crude breakdown of Table 1 is presented in Tables 2, 3, 4, and 5, listing the visible and palpable cancers, those visible with instruments, and those considered to be inaccessible. These lists can not be exact and their discrepancies will be discussed under their separate headings.

Table 2 is largely self-explanatory. Cancer involving the areas or organs listed here can be seen with the naked eye and constitute twenty-one and eight tenths per cent of the total estimated cancer incidence per one hundred thousand white population. Cancers in these areas should almost never be a diagnostic problem. As the Illinois Cancer Bulletin has so thoroughly emphasized, the diagnosis of cancer is facilitated by the attitude of mind of "think of cancer first." The only absolute way of diagnosing cancer is by biopsy, and this is the simplest possible maneuver on such surface lesions. The only equipment necessary is a bistoury blade and small forceps, or punch biopsy forceps, and procaine. The pathologist's definition of the tissue can be considered a "legal" diagnosis of cancer.

In a doubtful lesion where there is the slightest suspicion of cancer, a biopsy should be done. This does not mean carrying the principle of biopsy diagnosis to the extent of application to nevi in infants; but it should be emphasized that it is far more serious to miss an early, easily curable malignant lesion by neglect to do a biopsy than it is to treat a benign lesion as cancer in most of these surface areas.

Table 3 lists the sites and occurrence figures of palpable cancer. Such tumors comprise twenty-nine and three tenths per cent of cancer incidence. Palpation diagnosis of cancer of the rectum or prostate is fairly simple, and biopsy diagnosis of tumors of the rectum is a very easy procedure. Biopsy diagnosis of tumors listed in the other sites requires an operative procedure of

From the Department of Surgery, University of Illinois College of Medicine, and the Tumor Clinic of the Illinois Research and Educational Hospitals, Chicago, Illinois.

TABLE 1
INCIDENCE OF CANCER
Per 100,000 white population, U.S.A.

Site and Sex	All Ages (Standardized)
Lip:	
Male	10
Female	2
Tongue:	
Male	4
Female	1
Mouth:	
Male	5
Female	1
Esophagus:	
Male	5
Female	1
Stomach:	
Male	31
Female	16
Intestines:	
Male	17
Female	18
Rectum:	
Male	15
Female	10
Liver:	
Male	5
Female	7
Pancreas:	
Male	5
Female	3
Larynx:	
Male	5
Female	0
Lung, bronchus:	
Male	11
Female	3
Prostate: Male	22
Testes: Male	2
Penis: Male	1
Uterus: Female	54
Ovary, fallopian tubes: Female	11
Vagina, vulva: Female	3
Breast: Female	58
Kidney:	
Male	4
Female	2
Bladder:	
Male	12
Female	6
Skin:	
Male	38
Female	28
Brain:	
Male	2
Female	2
Bone:	
Male	4
Female	3

TABLE 2 — VISIBLE

Lip	12
Tongue	5
Mouth	6
Penis	1
Vagina, vulva	3
Skin	66
	93 = 21.8%

TABLE 3 — PALPABLE

Rectum	25
Prostate	22
Testes	2
Ovary, fallopians	11
Breast	58
Bone	7
	125 = 29.3%

greater magnitude. Any mass in the testicle demands investigation, as does likewise any mass in the female pelvis whose diagnosis is not definite on clinical grounds, such as fibro-myoma of the uterus. There is no way to differentiate early and potentially curable, ovarian cancer from a benign ovarian cyst than by transperitoneal exploration.

Cancer in the breast cannot be detected by any means until it becomes palpable. In the early stages when barely palpable, it is not clinically diagnosable, but this is of course the ideal time to attack the tumor. When a breast cancer has been allowed to grow until it produces the unmistakable clinical signs of mammary carcinoma, the best chance for cure has long been lost. Therefore, it is imperative that every suspicious solitary breast mass be diagnosed by microscopic examination. This means surgical removal of the mass for biopsy purposes. Once the diagnosis is established further treatment may be proceeded with as indicated. Bone lesions are included in the list of palpable tumors because, although not all of them produce palpable deformity by the time a physician is consulted, the majority of such cases do have some palpable change. An x-ray picture will of course show changes produced by tumor, even before swelling or deformity is evident. X-ray changes will be apparent usually as soon as the patient experiences pain, which is a constant localized symptom of bone tumor. This last observation is in contrast to acute



Figure No. 1 — Photograph of patient with carcinoma of left lower lip extending to and involving the commissure. This is an obvious clinical diagnosis but it should be verified by biopsy because a chancre could resemble this.



Figure No. 2 — Photograph of a basal cell carcinoma involving the skin of the left upper lip. This is a typical basal cell lesion with raised pearly border and central ulceration. For absolute confirmation blopsy should always be done on such lesions.



Figure No. 3 — Photograph of tongue with luetic glossitis, leukoplakia, and squamous cell carcinoma the size of a quarter located on right anterior dorsum of tongue. This is easily accessible for biopsy confirmation.

osteomyelitis, in which x-ray changes are not visible for some time after pain begins. The differential diagnosis between osteomyelitis and bone tumor is not a serious problem except in the case of Ewing's tumor. Of greater clinical importance is the differentiation between primary and metastatic bone lesions, and here, again, biopsy can be the only final arbiter. Although not included in Table 1 of estimated cancer incidence, carcinoma of the thyroid would be included in Table 3 of palpable tumors. Thyroid cancer, although not common, is by no means rare, and it is one tumor that is obviously palpable. This tumor usually occurs as a unilateral, solitary swelling of the thyroid in an individual without toxic symptoms. Such a clinical picture should always arouse suspicion and indicate surgical exploration. Again, if one waits till the lesion is fixed, and a recurrent laryngeal nerve is involved, the chance for cure is gone.

TABLE 4 — VISIBLE WITH INSTRUMENTS

Esophagus	6
Stomach	47
Larynx	5
Lung	14
Uterus	54
Bladder	18
	144 = 33.7%

Table 4 lists the sites and occurrence figures of those cancers which are visible with instruments. These lesions comprise thirty-three and seven tenths per cent of cancer incidence. Esophageal lesions can be demonstrated by x-ray techniques, and then may be visualized directly and biopsied through the esophagoscope. Stomach lesions are included in this table because they can be visualized through the gastrocope, although this instrument is essentially an aid to flouroscopic diagnosis. Tumors of the larynx are easily visible either by use of direct or indirect laryngoscopy, and may be biopsied in either manner. Tumors of the lung are always demonstrable by x-ray, but their actual diagnosis depends on biopsy and microscopic definition. Most primary lung tumors can be visualized and biopsied through the bronchoscope. Inclusion of uterine tumors with those listed as visible by the use of instruments is probably questionable. At least a vaginal speculum is required, and since epidermoid carcinoma of the cervix is far more common



Figure No. 4 — Photograph of squamous cell carcinoma of ear, arising from skin in a characteristic location.



Figure No. 5 — Photograph of patient with moderately advanced carcinoma of the right breast, showing the characteristic clinical findings of lateral flattening of the breast, nipple retraction, and deep indentation of the skin overlying the tumor which is comparatively small and located in the mid outer quadrant of the right breast.

than corpus cancer, inclusion here seems justified. Biopsy diagnosis of cervix cancer is easily performed, requiring usually only a "punch" biopsy forcep. As a rule anaethesia is not required, and only rarely is an operating room procedure necessary. Corpus cancer requires a dilatation and curettage for diagnosis but this certainly is one of the simplest of operative procedures. Frequently an office procedure using the Novak curette will suffice. Bladder cancer is easily visualized through the cystoscope and almost all areas of the bladder mucosa can be biopsied through this instrument.

Table 5 lists the site and occurrence figures of those cancers considered to be inaccessible. These comprise only fifteen and two tenths per cent of the total number of human cancer. Analysis of this group shows that diagnosis is not necessarily difficult because of anatomic location, although tumors so situated cannot usually be diagnosed in early stages. Tumors of the intestines consist mainly of lesions of the colon, and most of these are easily demonstrable fluoroscopically. Actually many of these tumors can be visualized and biopsied through the proctoscope, as the incidence of colon cancer is higher in the distal colon. As such these lesions should properly be classified with those in Table 4 as visible with instruments, but the occurrence rate in various portions of the colon is not stated in Table 1. Tumors of the liver are not accessible except by laporotomy, and this is also true of tumors of the pancreas. Kidney tumors lend themselves well to x-ray demonstration and urologic investigation. Brain tumors require neurosurgical techniques for their definition, but indications for such study should usually be fairly clear.

TABLE 5 — INACCESSIBLE

Intestines	35	
Liver	12	
Pancreas	8	
Kidney	6	
Brain	4	
	65	= 15.2%

The obvious importance of early diagnosis of cancer cannot be emphasized too strongly nor too often. If cancer began with dramatic initial symptoms our problem would be easier in that our attention would be more forcefully aroused. However that may be, the medical profession has a tremendous responsibility in the detection of the early subtle tissue changes of malignant growth, before the patient is desperately ill, and while the chance for cure is greatest. We must

develop the habit of suspecting cancer in any equivocal diagnostic lesion. This means that cancer must be ruled in or out, and this means that no treatment should be given until a definite diagnosis is established. The only absolute, or what I frequently term "legal," diagnosis of cancer at the present time is microscopic definition of the tissue, in other words, biopsy. It is, of course, true that in certain organs (for example, the breast) most of the cancerous lesions can be diagnosed with an accuracy approaching one hundred per cent by surgeons properly trained in surgical pathology. However, if there is any doubt, even the best trained surgeon should resort to microscopic confirmation.

Fortunately, as this discussion indicates, approximately eighty-five per cent of the cancers affecting humans may be considered to be accessible so that they can be visualized or palpated. Most of these are easily accessible to biopsy by simple procedures, so that an unequivocal diagnosis can be established without undue effort. Those tumors situated in locations requiring specialist examinations produce symptoms which any doctor should recognize as indicating such examination. Blood in the urine, persistent hoarseness, or difficulty in swallowing are simple signposts which require a complete diagnosis before any empiric treatment is given. There are no specific symptoms of cancer in any organ. Cancer presents itself clinically either as an abnormal mass of tissue, such as an ulcer of the lip, or lump in the breast, or it produces symptons of interference with the function of an organ, such as persistent indigestion, chronic cough, or bleeding from the rectum.

Precisely for the reason that many benign conditions may produce these same signs of dysfunction, it is imperative that patients be given examinations adequate to establish a definite diagnosis, always remembering that biopsy, when anatomically possible, is the only absolute diagnosis. Special biopsy techniques, such as the Papanicolau vaginal smear, or aspiration biopsy, should be reserved for the hands of trained experts working in tumor clinics. As demonstrated here, the majority of malignant tumors are "accessible," and can be diagnosed by relatively simple techniques.

It should be emphasized that the two greatest errors in the diagnosis and treatment of cancer are failure to think of cancer as a possible diagnosis, or failure to perform adequate examination. More errors in the latter category are perhaps made in carcinoma of the rectum than in any other site. Too often the symptoms of carcinoma of the rectum are classified as being due to hemorrhoids or some such unsignificant lesion, and a digital examination or protoscopy is not done.

The engravings used to illustrate this article were supplied through the courtesy of the Illinois Division of the American Cancer Society.

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VESICOVAGINAL FISTULA

JOSEPH E. BELLAS, M.D., F.A.C.S., A.B.S.
The Collins-Bellas Clinic
PEORIA

The subject of vesicovaginal fistula has never ceased to intrigue the surgeon albeit its consideration has frequently been accompanied by a chill travelling up and down the spine. This mixed emotion is not likely to affect the routine or conventional surgeon who has carefully avoided experiences with this condition or has not undertaken the performance of surgery that might lead to the development of this complication. But for those who have exposed themselves to wider limits of surgery, the above remarks will strike a responsive chord.

Strange to say, despite spasmodic feuds in other fields, there appears to be no great desire on the part of the obstetrician, the gynecologist, urologist, or general surgeon to claim exclusive privileges in operating on this type of case.

From the standpoint of the patient hardly any condition can be conceived as more distressing. The constant dribble of urine, the helpless inability to control its flow, the irritation, chafing, the compelling necessity of having to wear pads in self defense, the social ostracism into which the patient is forced to retire, all contribute to a low morale and a chronic state of mental depression. These patients invariably are eager to undertake any procedure for the

Read before Section on Surgery at the 107th Annual Meeting of the Illinois State Medical Society, Chicago, Illinois, May 13th, 1947.

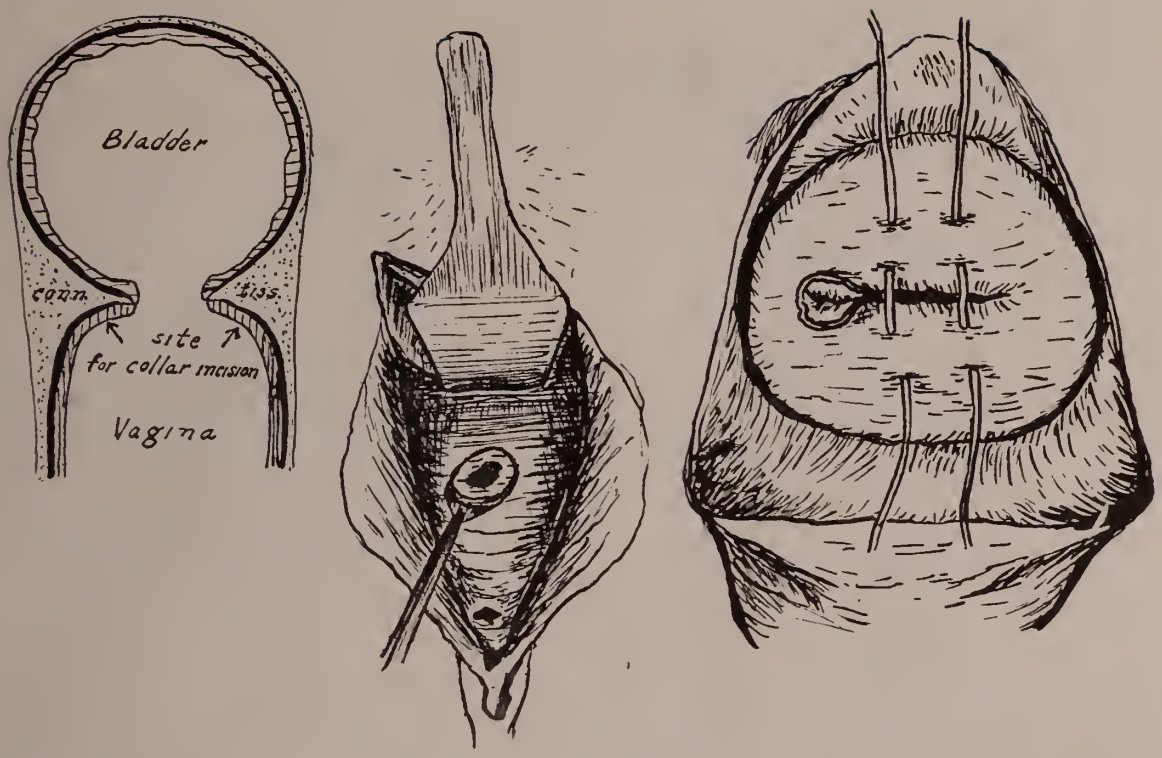


Figure 1. (After Martius)
a. Repair of vesicovaginal fistula, first step. (diagrammatic)
b. Collar incision.
c. Infolding of inner vaginal collar by vertical Lembert sutures.

eradication of the fistula in order to restore themselves to self sufficiency.

Although vesicovaginal fistulae may develop from the trauma of pressure in association with difficult or instrumental deliveries, from gynecological operations, or subsequent to radium therapy for uterine pathology, our own experience has been drawn mostly from cases of carcinoma of the cervix in which the Percy-Wertheim operation has been performed.

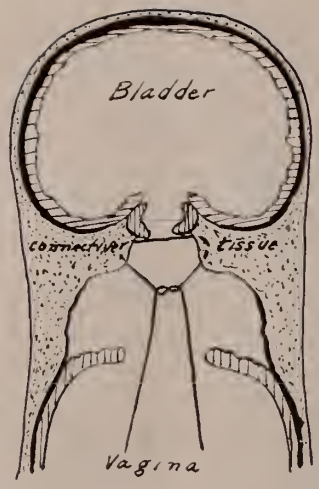
Especially during the early part of my association with the late Dr. Clifford U. Collins, before the popular advent of radium and x-ray therapy for carcinoma of the cervix, it was our custom to utilize the Percy cautery as part of the Wertheim procedure for the attempted radical cure of the carcinoma. It was not infrequent, after an apparently successful operation, to discover the presence of a vesicovaginal fistula during the convalescence. The necessity of performing a subsequent repair of the fistula became an anticipated procedure in undertaking an operation for cervical carcinoma. After having become a veteran in closing these vesicovaginal fistulae, Dr. Collins often remarked that he doubted if he ever cured a case of cervix carcinoma unless he also had a fistula to close in the same case.

As a result of numerous experiences in the repair of this condition which have included failures as well as successes, certain factors and details have established themselves in our minds as of considerable importance. The application of these details often may determine whether such an operation may meet with success or failure.

Five factors are listed:

1. *Time of operation.* The patient should be prepared to her optimum physical state. Sufficient time must be allowed to elapse so as to permit the tissues adjacent to the vesicovaginal fistula to regain approximately their normal vitality. It is courting disaster to expect devitalized tissues to heal after an operation of this nature. An arbitrary rule has been adopted which requires the interval of at least three months from the time that the necrotic process of infection has apparently subsided.

2. *Adequate exposure.* The location of vesicovaginal fistula may vary from case to case.



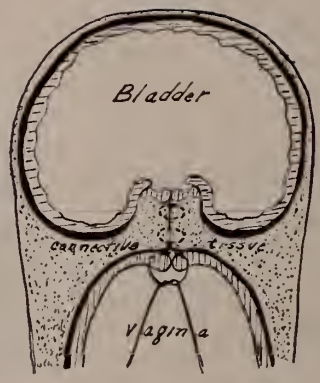


Figure 2. (After Martius)

a. Suture of paravaginal connective tissue, first layer as illustrated in Figure, 1c. (diagrammatic)

b. Inversion sutures of connective tissue in two layers followed by suture approximation of vaginal layer. (diagrammatic)

Unquestionably high vesicovaginal fistulae require much freer exposure than those located low. In addition, one often encounters a contracted or constricted vaginal canal or vaginal vault, and an exposure greater than that afforded by the vaginal canal is decidedly necessary. Such an exposure can be obtained by utilizing the Schuchardt incision. This consists of an oblique vagino-perineal incision which is virtually the same as that of an oblique episiotomy. (See Figures 1a, 1b, 1c.

3. *Technical details of operation.* No attempt is made to expose and suture the edges of the bladder wall. As a matter of fact, this procedure is distinctly condemned as it is doomed to failure. A vaginal mucous membrane collar is created by a circular incision about 0.5 — 0.75 cm. from the margins of the fistula. The edges of this vaginal collar are then moderately undermined toward the fistula so as to permit of later infolding. The edges beyond the circular incision are then undermined laterally as widely as possible. It is particularly important to sever the numerous scar bands and strands that are present subjacent to the vaginal mucosa. This exposes the paravaginal connective tissue the suture of which is of prime importance in the repair of this fistula.

This portion of the operation must be painstakingly and laboriously performed by the surgeon, in view of the fact that tissues of tissue-paper thinness are often encountered.

The vaginal collar may be dealt with by infolding it in the manner described by C. U. Collins bringing the vaginal edges toward the bladder by a strand drawn through the urethra (see figures 3 and 4) and followed by the application of 2 - 3 overlying purse-string sutures; or the vaginal collar may be inverted toward the bladder after the method of Füth and Martius by applying 2 - 3 layers of interrupted vertical or horizontal Lembert sutures through the paravaginal connective tissue. It is important that none of these sutures be applied under tension. The thoroughness of the preliminary undermining of the vaginal mucosa and exposure of a wide area of connective tissue surface, will almost always eliminate this. The final step is the suture of the remaining edges of the vaginal wall preferably in a line perpendicular to the direction of the connective tissue sutures.

The details of the above technic can be more readily appreciated by a study of Figures 1, 2a, 2b, 3 and 4.

4. *Choice of suture.* Catgut, silk, silkworm gut, silver wire, and probably many other sutures have been used in this operation. In our experience with catgut, a certain proportion of cases failed to heal thus necessitating a second operation for repair. Some cases required a third, fourth and even fifth operation before final closure was accomplished. One case failed to

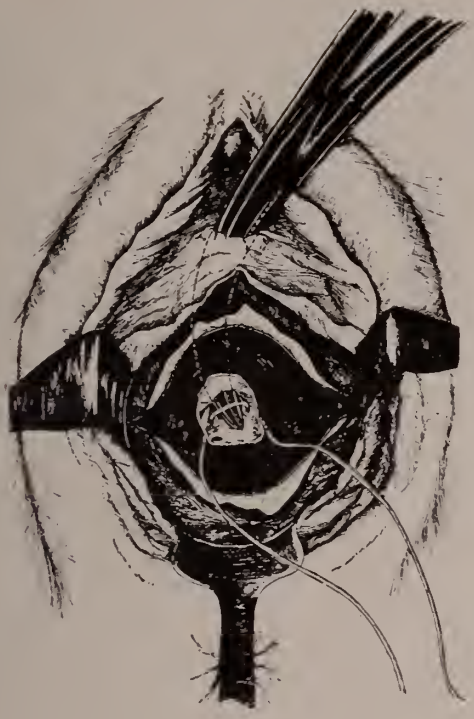


Figure 3. (After C. U. Collins)
The Collins method of inverting the vaginal mucous membrane collar toward the bladder.

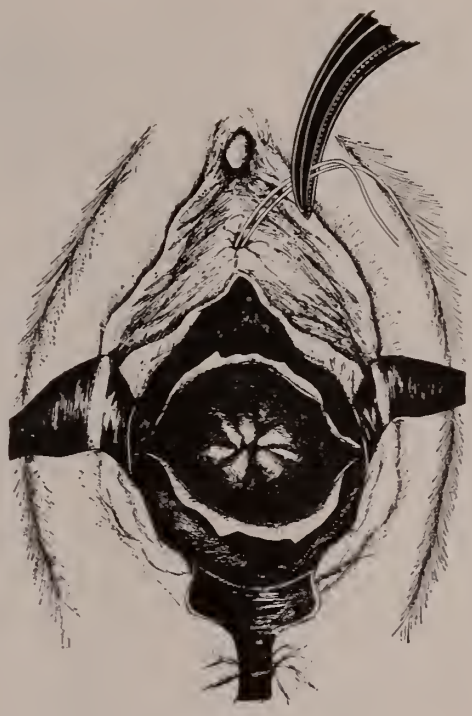


Figure 4. (After C. U. Collins)
Purse string sutures of paravaginal connective tissue while inversion of vaginal collar is maintained by suture drawn through the urethra.

heal after four attempts. Some of the cases had been operated elsewhere before their vesicovaginal fistulae were finally repaired by us. All in all, however, despite secondary surgery, failures and heartaches, our results compared favorably with those obtained elsewhere.

In more recent years, since I have become more interested in tissue reaction to sutures, I had been seeking a suture which would be relatively non-reacting. With the development of Plastigut, a plastic-incorporated non-reacting non-absorbable suture, it was decided to utilize it in three cases of vesicovaginal fistula. All three cases healed primarily much to the satisfaction and relief of all concerned. I believe there is a general tendency to consider a non-absorbable suture more useful than catgut in the repair of this particular condition.

5. *Postoperative Care.* The insertion of an indwelling straight catheter in the bladder is of course essential to prevent tension in the bladder from accumulation of urine. I have adopted the practice of suturing the catheter to the labia. This insures the catheter from becoming displaced and is a strong deterrent in preventing the patient from pulling it out. The catheter is left in for 14-16 days. The catheter must not be allowed to become obstructed, and frequent irrigations with no more than one ounce of boric acid or of saline at a time are instituted. The nurses must be told of the condition and of the precariousness of the anticipated result so as to secure their complete cooperation. It is advisable to give the patient prophylactic doses of sulfadiazine during the period of catheterization.

We have utilized the method of inserting ureteral catheters up to each kidney in order to reduce the amount of urinary flow into the bladder but have not become convinced that this will increase the percentage of successes. However, our experience with this method is too limited to pass a definite opinion.

REPORT OF A CASE

A sixty-four year old woman was operated for a relatively localized carcinoma of the cervix by the Percy-Wertheim operation in which the Percy cautery was utilized. She was discharged on the seventeenth postoperative day. A few days later she noticed a leakage of urine and on examination disclosed the presence of a fairly high vesicovaginal fistula, 1.5 x 1 cm., and a contracted vagina and vaginal vault which

had been noted prior to her operation. During the next three months, the patient was placed on prophylactic doses of sulfadiazine from time to time, and had to protect herself by wearing sanitary pads constantly.

On June 27, 1946, repair of the high vesicovaginal fistula was undertaken. The operation was performed in accordance with the technic described above.

An oblique Schuchardt incision was made in the left perineum, entering the lower third of the vagina. This gave better exposure to the vesicovaginal fistula which was associated with a very narrow vaginal canal. Bleeding points were caught and tied. A weighted speculum was inserted, and Guy sutures were placed at 12, 7, and 5 o'clock, wide of the fistula. A circular incision, penetrating through the vaginal mucosa was made about ½ to ¾ cm. from the margins of the fistula. The outer vaginal ring was then undermined carefully by scissors and knife dissection so as to free the vaginal wall from the bladder on all aspects, thus exposing the fascial tissue. The vaginal collar around the fistula was also undermined moderately. The anterior and posterior edges of the vaginal collar were then caught with a suture, and the ends left long. Curved forceps were introduced through the urethra to emerge through the vesicovaginal fistula, and the ends of the suture were placed in the jaws of the forceps and drawn up through the urethra. This inverted the vaginal collar. Interrupted sutures of #0000 plastigut were then applied to the fascia, external to the fistula, in a transverse direction. A second layer of interrupted plicating suture of #0000 plastigut was then applied. A semi purse string suture of #00 plastigut was applied as a third layer at each end. The suture emerging through the urethra was then released and pulled through. There was some resistance before the suture finally gave, prior to its removal. The margins of the vaginal wall were then approximated anteroposteriorly by a series of interrupted chromic #00 catgut sutures. The Schuchardt incision was then closed by a series of interrupted through and through plastigut sutures, including the skin. The edges of the mucous membrane and skin were then approximated by interlocking suture of #0000 chromic catgut.

A gauze sponge was placed in the vaginal vault so as to apply pressure against the operative field in order to eliminate the dead space. A catheter was introduced through the urethra into the bladder and it allowed the free escape of some bladder urine, only faintly blood tinged. The catheter was then fixed to the labia minora on each side by suture. Through the catheter, one-half ounce of methylene blue solution was injected into the bladder and pumped back and forth. Inspection of the gauze within the vaginal canal failed to show any methylene blue color; therefore, it appeared certain that the closure was water-tight.

The postoperative care described above was followed during the hospital stay. The catheter was withdrawn on the fifteenth day after another methylene blue and vaginal gauze test was found negative. She left the hospital on the twenty-first postoperative day with evidence of excellent control and the ability to void 250 cc. at one time. The patient has been inspected frequently since and has retained complete urinary control with not the slightest suggestion of leakage through the former vesicovaginal fistula.

Were this the end of the story, everyone would have lived happily ever after. What follows, however, is a sad tale as to how a surgeon in one moment's thoughtlessness could undo a completely successful result which he had striven to achieve.

After this patient had undergone four months of freedom from any leakage, I observed the presence of a suture at the site of repair over which the mucous membrane had apparently become eroded. I could not resist the temptation of trying to remove the suture; and as a result of the manipulation that followed, I was informed the following morning that leakage had recurred.

I allowed one month to elapse in the hope that the fistula might close spontaneously but also to make certain that any local tissue reaction from the manipulation had been practically eliminated.

Needless to say, the fistula did not close and in consequence a second procedure for repair of the vesicovaginal fistula was undertaken on November 26, 1946 five months from the original repair.

I performed this operation without the aid of a Schuchardt incision; although the exposure was rather limited, I found that I could now carry out the procedure fairly satisfactorily. A circular incision was made around the pin-point vesicovaginal fistula located in the upper third of the anterior vaginal wall. The mucous membrane, lateral to this incision, was then gradually and carefully undermined on all sides as far as possible. The vaginal collar surrounding the fistula was then moderately undermined toward the fistula. I first attempted to introduce a forceps through the urethra, bladder, and through the vesicovaginal fistula for the purpose of withdrawing a catgut suture which had fixed the edges of the vaginal collar for inversion. The fistula, however, was too small, and I was afraid to enlarge it. The edges of the vaginal collar were, therefore, united by the catgut suture externally. Three sutures of interrupted plastigut, #0000, were then applied transversely so as to further invert the vaginal collar and bring the extra-vesical tissues into approximation. This was followed by two purse string sutures of #0000 plastigut in two more layers. I, thus, had three layers of approximated tissue, superimposed upon one another. Methylene blue solution was injected into the bladder through a catheter and pumped back and forth without any signs of leakage through the site of the fistula. The vaginal mucosa was then approximated in a longitudinal direction by continuous interlocking #00 chromic catgut.

An indwelling catheter was inserted and fixed to the labia by suture. A vaginal pack, to be removed in three days, was inserted into the canal to exert pressure against the operative site.

During the operation no evidence of local recurrence of the original carcinoma was found.

Postoperative progress was essentially uneventful although there were some anxious moments when lack of nursing attention permitted plugging of the catheter and urinary retention up to 400 cc. However, on the fourteenth postoperative day a methylene blue vaginal gauze test was negative and the catheter was detached from the labia and removed. The patient was discharged from the hospital on the sixteenth postoperative day with no signs of leakage, much to the relief of the author not to mention of the patient.

To date there has been no evidence of any urinary incontinence whatsoever. The writer has learned a bitter lesson resulting from thoughtless interference but is not very likely to repeat the same performance.

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MICROBIOLOGICAL ASSAY OF THE ANTIBIOTICS

E. E. Vicher, Ph.D. and S. A. Levinson, M.D.

CHICAGO

Introduction.— Widespread use of the antibiotics, penicillin and streptomycin particularly, in treating infectious diseases has necessitated the development of assay methods for these antibacterial agents. Inasmuch as no accurate chemical test, colorimetric or otherwise, is available to date, we are completely dependent upon biological assay technics. Since we are dealing with antibacterial agents, the tests most likely to be of value are those in which the inhibitory or lethal effects of the unknown are tested against various species and strains of known susceptible organisms.

Certain bacteriological tests should be run routinely in connection with the antibiotic treatment of an infection. The first of these is the identification of the infecting organism. It is most always of advantage to determine this factor prior to treatment if possible. Secondly, an attempt should be made to determine the sensitivity of this organism to the antibiotic of choice to be employed in treatment. In this way a more accurate conception of adequate levels of the agent necessarily maintained in the body fluids may be had. The last of the necessary technics to be performed is that of determination of the level of antibiotic in body fluids (generally the blood) after beginning treatment with the agent. This enables the clinician to control the amount given in order that maintenance of therapeutic quantities is assured.

Basic methods available at present for assay of the antibiotics have been developed specifically, for the most part, for research and industrial laboratories. Samples taken at various steps in the preparation of these agents are tested for potency in an effort to keep production functioning with greatest efficiency.

The most common methods are: 1. Serial dilution method in liquid or solid medium using a sensitive organism; 2. a plate assay in which the diameter of the zone of inhibition around a cylinder (or cup) containing the antibiotic is used to determine the potency; and 3. a turbidimetric technic employing a standard curve constructed from turbidimetric measurements of bacterial growth in different concentrations of the unknown solution.

These methods, some modified, are now employed in the clinical laboratory for determination of antibiotic levels in body fluids. It is this type of assay that is of importance and interest to physicians and it will therefore be the subject for discussion. We will still, however, hold to the general technic classification.

Serial Dilution Methods.— Fleming[1], first used the serial dilution technic in 1929 to determine the inhibitory power of penicillin on various organisms. The precision of his technic and the following modifications depends upon steps in the dilution procedures. Their accuracy is given by different workers as varying from ±50% to ±100% and is considered to be satisfactory enough for clinical laboratory determinations.

The methods require sterile samples and use of aseptic technic throughout the procedure. To assure sterility, samples may be Seitz filtered without loss of potency. The test can be made to cover a wide range of antibiotic levels (necessary particularly for urine samples but ordinarily not so for other body fluids) and then narrowed down for more accurate final values by "bridging" large interval dilutions.

The first modification for clinical laboratory

From the Research and Educational Hospital Laboratory, University of Illinois College of Medicine.

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use to handle small amounts of blood or body fluid was that of Rammelkamp,[2] (1942) for penicillin determination. He used a strain of *Streptococcus hemolyticus* of high penicillin sensitivity and hemolysis of added red blood cells as an end point indicator. The last tube of the series showing no hemolysis was that containing the greatest dilution of penicillin still inhibiting the growth of the test organism. It therefore, was the endpoint tube in the test. By comparison with a standard solution of penicillin (to serve as a control and to determine sensitivity of the test organism), the concentration in the unknown sample may be determined as follows: Concentration in unknown sample (0.2 ml. of body fluid) = dilution factor x sensitivity value of the test organism. The level expressed in U/ml. is then obtained by multiplying the product obtained above by 5.

Example:

Dilution factor (endpoint tube): 1:64
Sensitivity value of test organism: 0.0039 U/ml.
Concentration of penicillin in unknown sample: 64 x 0.0039 x 5 = 1.248 U/ml.

Wilson[3] (1945), and Rake and Jones[4] (1943) have modified the above method so that determinations can be made in 3 to 3½ hours and 55 to 90 minutes respectively as compared with Rammelkamp's original 18 hour incubation period.

Fleming[5] (1945). reported the use of a slide cell technic (orginally devised by him in 1924) and a capillary tube technic for determination of penicillin in body fluids sensitive enough to determine levels of 0.03 U/ml. One cited advantage was the small quantity of sample (50 cu. mm.) needed for the assay. Another technic which is essentially a modification of Rammelkamp's original dilution method was developed by Rosenblatt et al.[6] in 1944. The patient's serum or other body fluid, a standard solution of penicillin and a standard organism (*Streptococcus pyogenes,* C-203) are required. The tests are performed by adding standard and unknown in proper dilutions to brain heart infusion broth (Difco) and inoculating with the streptococcus culture. After 18 hours incubation, the endpoint is read as that amount of penicillin and sample which will inhibit the growth of the organism. Concentration in the unknown sample may be calculated by comparing with the penicillin standard.

A modification of the technique of Rosenblatt et al. is used in our laboratory.

A series of ten tubes is set up, each containing 1 ml. of brain heart infusion broth (Difco). To the first tube of the series is added 1 ml. of the unknown sample (body fluid), necessarily sterile. Serial dilutions are then prepared by transferring 1 ml. of mixture from the first tube to the second tube, mixing, and repeating the process for the ten tubes series.

A second set of ten tubes is set up in a similar manner employing a standard solution of penicillin (5 U/ml.) as a control series and to provide for the determination of the sensitivity of the test organism.

To all tubes is added 0.02 ml. of a 12 hour brain heart infusion broth culture of a sensitive strain of *Bacillus subtilis* and they are then incubated 12 hours (overnight) at 37°C.

The endpoint is read as the last tube showing complete inhibition of growth of the test organism. The concentration of penicillin in the unknown is calculated (in a manner similar to that employed in Rammelkamp's method) by multiplying the reciprocal of the value of the greatest dilution inhibiting the growth of the test organism by the sensitivity value for the test organism obtained by reading the control test.

Example:

Greatest inhibiting dilution: 1:64
Sensitivity value of organism: 0.020 U/ml.
Penicillin concentration in unknown:
64 x 0.020 = 1.28 U/ml.

The above basic method is used for both penicillin and streptomycin determinations. Any organism showing a high sensitivity to the antibiotic may be employed as a known test organism. For penicillin determinations we routinely employ a susceptible strain of *Bacillus subtilis.* The Oxford strain of *Staphylococcus aureus* is very commonly used.

Kakavas and Scott[7] (1946), reported the use of a strain of *Streptococcus dysgalactiae* as the test organism for penicillin assay. They chose this streptococcus isolated from a bovine mastitis because of its high penicillin sensitivity (.006 —.008 U/ml.) and its resistance to normal blood bactericides.

For streptomycin determinations tryptose broth is substituted for the brain heart infusion broth and the test organism is a sensitive strain

of *Bacillus circulans*. Other streptomycin sensitive organisms have been employed, e.g., *Klebsiella pneumoniae*.

Results obtained by the serial dilution technic are reasonably accurate. The lower limits of concentration of antibiotic that one is able to determine by the above technics depend upon the antibiotic sensitivity of the test organism. The greater the sensitivity of the organism the lower the level of antibiotic. We are able to assay quantities equivalent to approximately twice the sensitivity value of the test organism (our first dilution provides the multiplicand of 2).

Plate Assays.—Plate assays of the antibiotics in use at the present time are essentially technics modified from the original Food and Drug Administration methods for testing antiseptic ointments, powders, etc. (Circular No. 198, U.S. Dept. of Agriculture, December, 1931). Several of these modifications are in use today. The technique used by the Food and Drug Administration at present, according to Knudsen and Randall[8] (1945), is as follows:

Petri plates (20 x 100 mm.) containing 21 ml. of a yeast beef agar are employed. These are flooded with 4 ml. of a melted, cooled (45° - 55°C.) agar inoculated with a 16-24 hour yeast beef broth culture of *Staphylococcus aureus*, 209-P. This added layer is allowed to congeal. Four (4) glass cylinders of specified size are placed on these plates (blotter or filter paper discs may be used). One cylinder is filled with a solution containing 1 U/ml. penicillin, and a second with a solution containing 0.25 U/ml.

The third and fourth cylinders are filled with dilutions of the unknown estimated to compare with those of the known penicillin solution. The glass cover is replaced by the unglazed porcelain cover and the plates incubated at 37°C. for 16-18 hours. The resulting zones of inhibition are measured to the nearest 0.5 mm. The zones of inhibition of the two known penicillin standards characterize the particular curve to be used in converting the zones of inhibition of the unknown samples to Oxford units. A "family of curves" should be set up on known samples by each laboratory employing this technique to facilitate these determinations.

A plate technique involving the use of sterile absorbent paper discs on the inoculated agar was reported by Sherwood et al.[9], in 1944.

Sherwood and his co-workers seed nutrient agar in flasks with a standardized spore suspension of a strain of *Bacillus subtilis* so as to contain 2 x 10^5 spores/ml. Twenty-five ml. portions are pipetted into 90 mm. petri dishes to give a depth of agar of approximately 4 mm. and allowed to congeal.

Four sterile filter paper discs are evenly spaced on the surface of the agar. With a 4 mm. loop, two loopfuls of undiluted standard are added to one disc and 2 loopfuls of a 1:4 dilution of that standard are placed on a second disc. Corresponding concentrations of unknown are placed on the other two discs in the same manner.

The plates are prepared in quadruplicate and incubated 5½ hours at 37°C. The resulting zones of inhibition are measured with a mm. scale.

The potency of the unknown is calculated by use of a formula as a percentage portion of the known standards run concurrently as shown in Table 1.

The average standard error of the above technic has been calculated by the authors as 4.3%.

Other modifications of plate technics appear in the literature (10, 11, 12, 13,). Any one of the methods can be used in a clinical laboratory. Certain advantages may be cited:

1. A large number of samples may be assayed daily without too much tedious manipulation.

2. Samples need not be sterile.

3. Samples of potency from 0-500 units involve relatively few dilutions as compared with serial dilution technics.

It must be remembered that all possible variable factors must be kept constant. These include; organism and amount of inoculum; make-up and pH of media employed; depth of agar in plate; and others which can effect the size of the zone of inhibition.

Any of the various modifications may be employed for assaying any one of the antibiotics by use of an organism sensitive to the agent in question. The procedure for the determination of the amount of antibiotic in general is one of calculation by comparison to standard curve values.

TABLE 1

Results obtained (zones of inhibition) in a test run:

	Standard		Unknown	
	Diluted 1:4 (25%)	Undiluted (100%)	Diluted 1:4 (25%)	Undiluted (100%)
Plate I	27.5	32.5	23.5	29.5
Plate II	27.0	31.5	23.0	28.0
Plate III	26.5	31.0	24.0	29.0
Plate IV	27.0	32.0	25.0	30.0
Sums	$108.0 = S_1$	$127.0 = S_2$	$95.5 = U_1$	$116.5 = U_2$

Calculations:

$$\text{Potency} = \text{Antilog } (2 + d) \frac{(U_2 + U_1) - (S_2 + S_1)}{(U_2 - U_1) + (S_2 - S_1)}$$

d = log of ratio of greater dose to smaller dose (in above example: 4)
2 = factor for converting to %.

Example using values above:

$$\text{Potency} = \text{antilog } (2 + 0.602) \frac{(116.5 + 95.5) - (127.0 + 108.0)}{(116.5 - 95.5) + (127.0 - 108.0)}$$

Potency = antilog 1.6538 = 45%.

Turbidimetric Methods. — It is the opinion of most investigators that turbidimetric methods are too cumbersome for handling many assays. Although their order of accuracy (±10 - ±15%) is greater than that of either serial dilution or plate technics, the methods are somewhat unwieldly for the clinical laboratory. On the other hand, because of this increased accuracy their value in the antibiotic research and production laboratory is greater.

Technics are based on proportional inhibition of growth of a sensitive organism in a liquid medium as a function of the antibiotic concentration. Growth measurements are made with a photo-electric colorimeter. A standard curve is prepared daily with unknowns run in from 3 to 5 different dilutions.

Foster[14] (1942), reported on the first turbidimetric penicillin assay. He prepared varying dilutions of the penicillin standard and dilutions of unknown estimated to approximate final penicillin concentrations of the standard in a phosphate buffer. These are added to double strength nutrient broth previously inoculated with the test organism (*Staphylococcus aureus,* Oxford strain). The mixtures are incubated 16 hours at 37°C., shaken, poured into Evelyn tubes and read in the photelometer. Per cent transmission is plotted against penicillin concentration. Three to five levels are run on each unknown depending upon how many can be predicted to fall on the central portion of the curve. Penicillin concentration of the unknown is obtained by comparing transmission values with those on the standard curve.

Joslyn[15], (1944), reports on a turbidimetric assay which can be read in 4 hours. Osgood and Graham[16], (1947), investigated a turbidimetric assay method for penicillin, streptomycin, and trivelent organic arsenicals utilizing a short (3-hour) or long (overnight) incubation period. Control serum, known antibiotic-in-saline dilutions, and the unknown serum (or other body fluid) are each added to broth cultures of the test organism in sterile matched photo-electric colorimeter tubes and incubated at 37°C. in a water bath. Photolometric readings are made immediately and at intervals up to 2½-6 hours. A reading is made after overnight incubation if one is using the long incubation period procedures (for penicillin). From transmission values obtained at different time intervals, the

concentration of antibiotic in the unknown samples may be calculated by comparison with those obtained on the known standards.

Perhaps with further work along these lines, a simple turbidimetric technic for clinical laboratory assay of antibiotics will be available.

Antibiotics Used in Therapy. — It may be of interest to note approximately what concentrations of the most commonly used antibiotics, penicillin and streptomycin, might be expected in the blood of patients under treatment.

Fleming et al.[17], (1944), found that on intravenous injections of 15,000 units of penicillin, 4 units/ml. of penicillin were detected immediately in whole blood. In 10 minutes, this level fell to 0.5 units, in one hour to 0.03 units, and in three hours none was detectable. When 15,000 units of penicillin were given by intramuscular injection, and using the same time interval, 0.0, 0.12, 0.5 and 0.0 units of penicillin were present in the blood. Subcutaneous injections gave values similar to the latter. Intramuscular injections of 100,000 units gave a maximum of 2-3 U/ml. after 15 minutes with some still present in 5-6 hours. The intravenous drip method maintains a level dependent on the rate of infusion. By dripping intramuscularly 240,000 every 24 hours for 3 days, a level of 0.5 U/ml. was maintained.

Kornegay et al.[18], (1946), report the following values on blood levels in patients under streptomycin therapy. Following the intramuscular injection of 30,000 units every 3 hours, a level of 2.1 U/ml. occurs after 15 minutes, rising to 2.5 U/ml. one hour after injection and falling to 1.3 U/ml. at the end of the third hour. Intramuscular injection of 100,000 units every 3 hours results in a level of 1.1 U/ml. one hour after injection, and 2.6 U/ml. at the end of the third hour. Levels of 7.4 U/ml. are reported upon the third day of continuous therapy at this rate. Injection of 1 million units intravenously every 6 hours results in levels of 11 U/ml. at 1-1/3 hours and 10.5 U/ml. at 3 hours.

Continuous therapy with 1.8 to 2.0 gm. of streptomycin every 24 hours for long periods of time (as in tuberculosis therapy) results in levels averaging 16-18 U/ml. with occasional "highs" of 28 to 30 U/ml.

An organism sensitive to an antibiotic will ordinarily be inhibited by well under 1.0 U/ml. of the agent. Most streptococci are sensitive to less than 0.1 U/ml. of penicillin. Other Gram positive cocci fall well within a similar range. The same holds true with organisms sensitive to streptomycin, e.g., the sensitivity value of the average human tubercle bacillus appears to be approximately 0.39 U/ml.

It might well be emphasized, however, that most investigators maintain that it requires approximately 4 to 8 times the amount of antibiotic necessary to inhibit the growth of the organism "in vivo" as it does "in vitro". This fact must be considered in maintaining a therapeutic level of the antibiotic in the blood stream.

From the foregoing material, therefore, the importance of the role of microbiological assay of the antibiotics in the clinical laboratory cannot be emphasized too strongly. The adopted technic, whichever it may be, first furnishes the clinician with a picture of the work to be done by determining the sensitivity of the infective organism to the antibiotic of choice and, secondly, allows him to follow and adjust the course of its therapeutic effect.

DISCUSSION AND CONCLUSIONS

In our opinion, based upon experiences in several laboratories now routinely performing the various procedures accompanying antibiotic therapy, the serial dilution technic may be employed to greatest advantage where a relatively small number of levels and sensitivities are run (several tests per week). If, on the other hand, the laboratory is called upon to perform many more tests routinely, the plate technic is desirable. To determine antibiotic sensitivity of a greater number of organisms isolated from infective processes, it is simpler and less time consuming to use the streak plate technic. The plate technic of choice for determination of body fluid levels is that which employs the absorbent paper disc as a container for the fluid. The discs are more easily procured (or readily prepared in the laboratory), more easily placed on the surface of the seeded medium, and more easily filled with the sample. Filling the disc may be accomplished by use of the standard loop as previously described or by the addition of an average quantity of 0.1 ml. of sample with a sterile pipette (dependent upon size and thickness of disc). An average curve or "family of curves" is then prepared by the laboratory for its own use and determinations of unknown sample made by comparing sizes of zones of inhibitions as plotted on the curves.

There is need for an "ideal" assay of antibiotics whether it be by microbiological or chemical technics. Such an assay should possess the following attributes:

1. No pre-treatment of sample should be required.
2. Method should be amenable to large or small numbers of routine determinations.
3. Results should be rapidly obtained.
4. The endpoint should be unequivocal.
5. Results should be reproducible in the same and in different laboratories.

To date, the serial dilution technics and plate assay methods (with their accuracy of ±50 to ±100%) are those of choice for determination of the antibiotics in body fluids and are thus of most value to the clinical laboratory.

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PREVENTION AND TREATMENT OF COMPLICATIONS OF CATARACT SURGERY

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This subject may be divided into four sections, namely, (1) prophylaxis, (2) accidents preliminary to operation, (3) complications arising during operations and (4) post operative complications.

Prophylaxis. — As in preparation for all intra-ocular surgery, a careful physical examination should be done. Special reference should be made to urinalysis, blood pressure and the blood picture. If there is any tendency or history of anaemia, blood clotting time should be known. Diabetics should be sugar free if possible. The clotting time should be brought to normal and if the blood pressure is over 200 mm. of Hg. a venesection to draw off 500 cc. of blood should be done an hour or more before operation.

The conjunctiva and tear sac should be clinically clean. Cultures are not necessary. If any infection has been present as recently as a month before operation, an antiseptic solution should be used for at least a week prior to surgery.

The tension of the eye should be normal and the size to which the pupil will dilate should be known, the latter to learn whether an intracapsular operation should be attempted without iridectomy.

If the tension is elevated, the treatment will depend on the stage of the cataract. If the glaucoma is due to an intumescent lens causing a blocking of the chamber angle, myotics may control the tension and one may wait until the anterior chamber becomes deep and the cataract matures. This is the preferable treatment when waiting is possible and miotics reduce the tension. If the above treatment fails a preliminary iridectomy may be done followed by the lens extraction in 6 weeks. If the tension is con-

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sistently under 40 mm. of Hg., a combined lens extraction may be done safely. In such cases, an intracapsular extraction is preferable to lessen the danger of secondary glaucoma after operation.

If opiates are to be used after operation, test the patient out before to learn whether or not he becomes nauseated or vomits following their use. Some patients have emesis as late as 24 to 36 hours after morphine.

If the patient has asthma or any respiratory difficulty, it is well to use sutures or a conjunctival flap to lessen the danger of a wound rupture should he suffer an attack after operation.

It is well to let the patient practice looking down and to warn him against squeezing or "knifing" the lids. Even if a guide suture is used at operation, the ability to look down allows a better inspection of the wound when doing the dressings.

Pre-Operative Procedures. — By this term we mean, those maneuvers resorted to before the corneal section.

Clipping the lashes reduces the danger of infection.

Most surgeons use some form of akenesia. We believe this should always be done.

In addition, in case of a small, deep set eye, external canthotomy makes the operation easier.

Retro bulbar injection lessens the pain of iridectomy and the slight hypotony makes the intra-capsular extraction safer. In case a blood vessel is entered and a hematoma with proptosis occurs, stop, and postpone the operation until the eye returns to normal.

A superior rectus guide suture is of value to steady the globe while making the section and to hold the eye depressed in a patient who will not look down. Care should be taken not to pull too hard on this suture for it is possible by too much pull, to cause the wound to gape and lose vitreous especially during the extraction of the lens.

Cornea-scleral sutures are of value to insure firmer healing with less astigmatism and reduce the incidence of iris prolapse or post operative rupture of the wound and hemorrhage.

A conjunctival flap pulled down from above is an excellent safeguard against eversion of the cornea, gaping of the wound, as well as loss of vitreous and iris prolapse.

At operation. — Fixation on the internal rectus muscle with a superior rectus guide suture in place gives the best stable position of the globe for making a corneal section whether a Graefe knife or a Keratome is used.

Care must be made to lift up and not push on the fixation forceps regardless of the point of fixation. Pressure may cause the upper iris to ride in front of the Graefe knife and be cut or may even cause the vitreous to prolapse during the section.

The corneal section should be large, almost one-half the corneal if an intracapsular operation is attempted. It may be smaller for an extra capsular. If the section is too small, difficulty in delivering a large nucleus may easily cause vitreous loss. If the cataract knife is introduced into the anterior chamber with the cutting surface down, withdraw so that only the tip barely remains in the anterior chamber and turn it up quickly 180 degrees by rolling it up with the thumb while held against the index and second fingers first pulling the thumb down slightly, and pushing the fingers up a little.

To withdraw the knife entirely often empties the anterior chamber and on a new attempt, the iris is in the way making the section difficult or impossible without cutting the iris.

If, while making a keratome incision the iris prolapses, it is best to do an iridectomy at once before enlarging the incision with a scissors. There is less pain after the iridectomy as well as less trauma to the iris and the section is simpler and easier to do.

Hemorrhage during operation can come from 4 sources. These are (1) from the ciliary body which occurs when the counter puncture is too deep in the sclera. To avoid too deep an incision, do not lose sight of the tip of the Graefe knife. If it is invisible, it is too deep and a scleral incision will result. (2) From the iris at the time of the iridectomy, especially in senile patients with marked arterio-sclerosis. (3) Seeping into the anterior chamber from conjunctival bleeding. This can be avoided by careful pressure and adrenalin before the corneal section is made. (4) Expulsive choroidal hemorrhage which is an unavoidable tragedy. Should the latter occur, enucleation should be done at once.

When hemorrhage is seen in the anterior chamber, it should be irrigated before proceeding with the extraction.

To do an extraction through a round pupil, the latter should be able to dilate 7mm. If the pupil will not dilate widely under cycloplegia, do an iridectomy.

We have seen the iris prolapse as often with as without a root iridectomy[1] and when doing a round pupil extraction, omit the iridectomy.

If a vitreous prolapse occurs before or after extraction of the lens through a round pupil, iridectomy should be done. In such cases without iridectomy, we have seen severe iritis occur when the iris rolled up under the superior ciliary body.

If vitreous prolapses before delivery of the lens, a spoon or loop extraction should be done.

If it occurs after extraction any cornea-scleral sutures should be tied and any vitreous which remains between lips of the wound should be snipped off.

In doing an extracapsular extraction we prefer a toothed forceps and attempt to get a big round opening in the anterior capsule. This is difficult to do with a cystotome in cases with tense capsules, and if a large portion of the anterior capsule is left, a dense secondary cataract inclosed in capsule remnants may result and needling such cases is extremely difficult.

After extracapsular extraction, saline irrigation of the anterior chamber hastens clearing of the pupillary space and lessens the danger of secondary glaucoma.

After irrigation, attempt to replace the iris. If any cannot be easily replaced, it is better to snip it off to prevent a subsequent anterior synechia or incarceration.

An occasional accident at operation is pressing the lens back into the cavum occuli. This can be avoided by placing a spatula on the scleral lip of the wound before pressing on the lower limbus. This maneuver directs the superior pole of the lens up and out instead of back and down into the vitreous. If the lens is in the vitreous, it must be spooned out with a lens loop or spoon.

After operation the akenesia may work so well that the lids cannot be closed. If this happens, we use Meyer Weiner's method. A thin wisp of cotton is placed over the lids which are held together and saline or boric solution dropped on while it is very gently smoothed and pressed against the lid skin. This acts just like a collodion dressing and comes off easily at the time of the first dressing. An antiseptic ointment is used in the eye after operation. If an iridectomy has been done, atropine ointment is used and the eye dressed in 48 hours. If extraction through a round pupil has been done, eserine ½% ointment is used and atropine ointment used in 24 hours. At subsequent dressings enough atropine ointment is used to keep the pupil dilated to 6mms.

Postoperative. — The most frequent post operative complication is hemorrhage. This may remain from the operation or may occur at any time after operation. Small hemorrhages may disappear in 24 hours. Most hemorrhages occur on the fifth day and are due to minor wound ruptures. The slightest motion of the wound lips may rupture some of the new formed superficial blood vessels and lead to hemorrhage into the anterior chamber. As a rule, it will be gone in 24 hours. If the hemorrhage is large, an anterior chamber puncture with a keratome at the 6 o'clock limbus will allow it to drain off. Very rarely, saline irrigations may be needed to remove a clot.

The hemorrhage may be from an iris blood vessel and continue. For this, place the patient in a more erect position. The various coagulants, calcium, vitamins C, K and E have all been recommended. Even these hemorrhages usually clear in time but occasionally a black hematoma may remain and a very dense membrane with blood staining of the cornea can occur. In such cases, the visual results are poor.

Expulsive hemorrhage of the choroid has occurred as late as five days after operation, but we know of no way of preventing its occurrence and when it happens, the eye is hopeless and should be enucleated.

Eversion of the cornea may occur when no sutures are used or after very severe vomiting.

In event of such an accident, a large superior conjunctival flap should be prepared, the wound opened on both sides to a point about 1mm. below the horizontal line marking the lowest point of normal cornea and the flap pulled down and sutured to the conjunctiva opposite 4 and 8 o'clock. This procedure was described by me in 1937[2].

For rupture of the wound which usually occurs about the fifth day, a similar conjunctival flap should be used, but the wound need not be opened as far down as in case of a corneal eversion.

Prolapsed iris should be snipped off and covered with a conjunctival flap. We do not use chemical cautery. We have seen severe corneal opacities and secondary glaucoma arise after such cautery.

Shallow anterior chamber after cataract operations may be due to detachment of the choroid or seepage from an imperfectly closed wound. In either case, the condition will usually return to normal within two weeks. Rarely it requires more time.

Secondary glaucoma may occur early. If it is due to swollen cortex in the anterior chamber, a keratome incision at the 6 o'clock limbus usually permits the cortex to escape without irrigation. In rare instances saline irrigations are necessary.

When the glaucoma occurs several weeks or months after operation, a cyclodialysis is indicated if the condition is not controlled by miotics. Miotics, particularly Carcholine can reduce the tension even in cases with complete iridectomy. When a cyclodialysis is done if the iris pillars are adherent to the cornea or the healed incision, they should be freed before the iris angle is opened. If attempted after the spatula is swept through a quadrant to open the iris angle, the hemorrhage will obscure the pillars and freeing them is difficult or impossible.

We are in no hurry to remove the sutures. Any conjunctival sutures are removed when they come loose or at the end of ten days if they do not. Any cornea-scleral sutures are permitted to remain until the wound is firmly healed and there is little danger of rupturing the wound if the patient looks up suddenly while the tip of the scissors is under a loop. It is even safer to cut the suture from above and not permit the blade of the scissors to get under a loop of the suture. In fact, a suture covered by conjunctiva and producing no irritation need not be removed.

Iritis may complicate cataract operations. When mild, irritative, only atropine is necessary. If severe, the usual treatment for any iritis should be used. If typhoid vaccine is used, 150 to 250 million is given at the first injection and subsequent dosage depends on the reaction and results. Rarely a vitreous abscess or a ring abscess of the cornea is seen. This is usually an exogenous infection. Typhoid vaccine and the biologicals in large doses should be given, but the prognosis is very poor.

With the extra capsular extractions, phaco anaphylaxis is occasionally seen. Lens antigen and foreign protein are used usually with very poor results.

Secondary cataracts from lens capsule, cortex and hemorrhage are seen in almost 50% of extra capsular extractions. Needling should not be attempted until the eye is pale, rarely less than six weeks after the lens extraction. When doing a needling, the aim should be to make a clear 2 to 3mm. opening, not to remove all the capsule. That is adequate for normal vision even if it may not give a perfect anatomical result.

If the secondary cataract is too dense to needle, a corneal incision and removal of a central portion with a scissors must be done. Vitreous will usually be lost, but this need not impair the visual result.

If the lower iris is pulled up to the superior limbus, a new pupil must be made. This is a very simple procedure. A horizontal incision of 5mm. should be made just below the level of the corneal vertex. The traction will usually open up a round hole in the iris. Very little hemorrhage occurs from this procedure.

Retinal detachment may occur at any time after a cataract extraction. If seen and operated on early enough, the results in our experience are as good as in any other type of retinal detachment. The micro-coagulation with diathermy is the operation of choice.

We have seen as late complications of cataract surgery:

1. — Central vein thrombosis three weeks after an intracapsular extraction with 20/30 vision at time of discharge from the hospital.

2. — Optic neuritis with subsequent optic atrophy in a diabetic — six months after operation.

3. — Diabetic Retinitis in several patients whose retinae were normal immediately after operation.

4. — Hypertensive neuro retinopathy in several cases.

Anything can happen to eye after a cataract operation that can happen to a healthy eye, but it is discouraging after a successful operation to see these late complications.

We are often asked, how serious is loss of vitreous in a cataract operation.

We have seen as much as 1/3 of the healthy vitreous lost and the eye have 20/25 vision as long as twelve years later.

We have never seen vitreous abscess or exogenous infection occur in eyes with vitreous loss.

With loss of vitreous, as with intracapsular extraction, the eye remains pale for four or five days and the injection usually seen on the second or third day after extracapsular operation does not occur until later.

We do not believe that retinal detachments occur any more frequently in cases with vitreous loss than in those without.

We have never seen choroidal detachment in cases with loss of vitreous.

We do not like to lose vitreous in our cataract cases, but we believe that such a loss is no calamity.

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DISCUSSION

Dr. Hallard Beard, Chicago: Dr. Bothman really leaves very little to be said on the subject of complications to the cataract operation. My remarks therefore may be taken by way of emphasis. I can personally bear witness to nearly all the untoward developments described by the essayist as occurring in consequence of cataract operations, and I was particularly struck by his reference to a diabetic retinopathy which appeared after a successful operation had revealed a normal fundus oculi. To convince a patient of one's innocence in such a matter makes considerable demand upon his credulity as well as upon one's own power of expression.

One not infrequent complication I should like to dwell upon for a moment; that is, late prolapse of the iris. This annoying affair develops rather slowly and occasionally reaches enormous proportions, appearing as a great bluish, nodular excresence on the eyeball in the region of the incision. It is caused by imperfect union of the lips of the wound, between which the iris interposes itself. The iris is not a firm tissue, but is plastic, like rubber, and when acted upon by the internal pressure of the eye, it stretches to become a balloon-like hernia. The repair of this constitutes no small operation in itself, yet it must not be neglected as it always causes an intolerable astigmatism and is liable to rupture upon the least traumatism.

The two most tragic complications to the cataract operation, or indeed, to any penetrating operation on the eyeball, are expulsive choroidal hemorrhage and and sympathetic ophthalmia. Both, I am thankful to say, are quite rare, since the surgeon is powerless in either event. Sympathetic ophthalmia is particularly malignant in that it destroys not only the operated eye but also its fellow. Such a tragedy makes an indelible impression on the mind of the surgeon. Perhaps it would be best for one of these dread accidents to happen — if, indeed, they must happen at all — in the experience of the young ophthalmologist who is just receiving his training, in his residency, for example, when his responsibility may be shared by his senior on the service.- He is then more likely to approach major eye surgery with the wholesome respect it deserves.

Dr. Max Kulvin, Chicago: I would like to ask Dr. Bothman if he has experienced epithelial downgrowth following cataract extraction and what if anything does he do about it.

Dr. H. F. Ford, Champaign: I recently had the privilege of attending a meeting of the New York Academy of Ophthalmology, at which a paper was presented by a Hopkins man advocating a somewhat more shallow incision to lessen the danger of anterior chamber hemorrhage. From statistics presented, the Kirby peripheric incision, with very little conjunctival flap, lends itself admirably to the theory proposed. If you have a deep incision you are much more apt to have hemorrhage also. I have come to the conviction that the corneoscleral stitch should be left to slough out or at least be left several weeks.

Dr. Louis Bothman, Chicago: In answer to the last question, trichloracetic acid is recommended only for a small prolapse; those are the cases I referred to when I said I saw severe corneal opacities result.

In regard to epithelium in growth from the cornea; that condition occurs once in awhile. We once attempted to remove it without success and since then have used x-ray in treatment. However, the results are not good. Diathermy has been used with one good result. A case like that is very likely to be lost from secondary glaucoma. Eventually the epithelium completely lines the anterior chamber, so the results are very poor. I might tell you of a case I saw recently, not due to corneal epithelium growing into the wound, but to a piece of iris which dropped into the lower anterior chamber at the time of iridectomy. A small piece remained in the anterior chamber and I did not see it. Later it was visible in the lower angle at 6:00 o'clock, and from that a very thin membrane grew and completely covered the cornea, lining the chamber angle. We used x-ray on that case. The eye is quiet and soft, but there is only light perception. I have never run across such a case in the literature. I think it is very unusual that iris tissue should proliferate in this manner.

It is true that the ideal corneal section should be made at the corner where no vessels are encountered and further, to do extraction for a round pupil without iridectomy. Such a procedure would eliminate the danger of hemorrhage or sympathetic ophthalmia.

IMMUNIZATION PROCEDURES

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The production of active immunity by artificial immunization is still one of the most important methods for the control of communicable diseases.

Faced with the problem of the waning of previously acquired immunity, particularly in adults, and consequently by the absence of immunity in newborns, health officers and physicians are being forced to reconsider the schedules of immunization which they formerly employed. It has become necessary to find antigens which will produce immunity in the very young, and also to find antigens which can be used in adults without causing severe reactions. This has been done to some extent, but the brightest part of the picture has been the growing evidence of the efficacy of combined antigens, which is resulting in a decrease in the number of injections required in a full immunization schedule. The purpose of this discussion is to outline briefly the present status of those immunization procedures which are effective against diseases currently present in Illinois.

SMALLPOX

From the standpoint of current morbidity and mortality, smallpox is probably the least important disease with which we have to deal. However, when one considers the possible implications of any lapse in the immunity status of the general population, smallpox becomes very important. Recent experiences in England and on the West Coast of the United States and now in New York, have shown again the rapidity with which smallpox can spread among an unimmunized, or a poorly immunized population group. Smallpox is still prevalent in many areas of the world and the efficiency of present day methods of travel, particularly by air, means that travelers can be back in Illinois within a day or two after having been exposed to smallpox in another country. It was even possible for soldiers, who had been exposed in Japan and Korea, to reach this country by ship before showing any of the signs or symptoms of the disease. It is necessary, therefore, to maintain a high rate of immunization in this country as long as smallpox is occurring anywhere in the world.

The occurrence of smallpox in U. S. troops, supposedly vaccinated against the disease, raised some questions as to whether or not the smallpox vaccine in use was protective against the strains of smallpox endemic in the Orient. After investigation, it was concluded that the vaccine was protective, and that the cases occurred in individuals incorrectly assumed to have shown "a reaction of immunity" following vaccination.

Localized outbreaks of smallpox in England caused by returning air travelers showed again that smallpox can occur among the vaccinated and re-opened the question of the duration of immunity conferred by the primary vaccination. Furthermore, it was demonstrated that vaccination performed in the incubation period is not necessarily protective, as it is possible for a perfect "take" to develop simultaneously with the disease.

Frequent re-vaccinations are necessary to maintain immunity. It is equally important that the vaccination be performed correctly, using a potent vaccine, and that the result of the procedure be read by someone experienced in the interpretation of the reactions following vaccination.

Primary vaccination should be done in the first year of life and may be done as early as one month of age. The period between 3 and 6 months is probably the best. Nothing less than yearly re-vaccination can be considered safe, and at the most, the interval should not exceed three years.

DIPHTHERIA

The decline in diphtheria morbidity and mortality, which has taken place over the years, has probably not been entirely due to artificial immunization. Accompanying this decline there has been a simultaneous decline in the number of diphtheria carriers. There has resulted, therefore, a decrease in the frequency of naturally acquired stimuli to immunity, and a consequent decrease in the general level of immunity in certain sections of the population. Repeated Schick test surveys have shown that 50 to 60% of young adults are susceptible to diphtheria, in contrast to an incidence of 20 to 25% of positive reactions formerly reported in these age groups. The last

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few years have seen a definite shift of the incidence of the disease into older age groups. In addition, it has been shown that an increasing number of women are entering pregnancy without immunity to diphtheria. It is no longer possible to assume that infants are immune to diphtheria during the early months of life, as a consequence of passively acquired immunity from the mother.

It is also important to note that as a result of the reduced prevalence of diphtheria bacilli, artificially induced immunity is not as lasting as it once was. The chance contacts with cases and carriers are no longer available to stimulate immunity. The public health significance of this situation is important, for we must not only concern ourselves with the immunization of a wider age group, but also must face the necessity of maintaining immunity once it has been established. We must consider the desirability of beginning primary immunization at an earlier age, the more frequent use of stimulating injections of antigen, and the extension of immunization to older age groups.

In children the problem is relatively simple. The use of two doses of 1 cc. each of alum-precipitated diphtheria toxoid at intervals of at least 4 weeks is still the procedure of choice. The only question is whether it is safe to postpone immunization beyond six months of age. If the mother's Schick test is positive, either the mother should be immunized in the last trimester of pregnancy, or the infant should be immunized at an early age, even though it may be necessary to re-immunize later. Under no condition is it wise to postpone the beginning of diphtheria immunization beyond the sixth month. Diphtheria immunization may be satisfactorily combined with pertussis vaccine, tetanus toxoid, or both. A stimulating or booster dose is indicated at the time of entrance to school, or earlier if the child attends a nursery school or has school age siblings.

In adults the problem is not so clear. Both alum-precipitated toxoid and fluid toxoid are likely to cause severe reactions in adolescents and adults when given in the usual dose. Obviously, with our presently available antigens, we are not yet ready to advise the mass immunization of all adults. The further development of some of the materials still in the experimental stage, such as protamine toxoid, may at some future date lead to a change in this thinking. It is also necessary to consider that we may have been using excessively large doses of toxoid. In England doses of alum precipitated toxoid as small as 0.1 to 0.3 cc have apparently been effective. Unpublished studies in one of the state hospitals in Illinois showed that doses of ¼, ¼ and ½ cc. of fluid toxoid produced a satisfactory percentage of reversal of the Schick test in adults six months after immunization. It may be possible to achieve satisfactory immunization of adults with much smaller doses of toxoid than have been commonly used.

At the present it is desirable to perform the Moloney test in adults in whom immunization is indicated, using 0.1 cc. of diluted toxoid, and to administer divided or diluted doses of toxoid to those who show a positive Moloney reaction. The usual initial dose of fluid toxoid is 0.1 cc. and this may be substituted for the Moloney test. If no reaction follows, the immunization can then proceed with an increased dose.

PERTUSSIS

Although it does not completely protect all children against whooping cough, the development of pertussis vaccine has progressed to the point where there are no grounds for omitting the protection afforded for any infant or young child. The greatest disadvantage of pertussis vaccine, that it was not effective in the early months of life when protection was most needed, has apparently been overcome by the development of the alum-precipitated vaccine, which is capable of producing immunity even when begun as early as the first month of life. The point made in the discussion of diphtheria, that it may be well to consider the immunization of the mother during pregnancy, is also applicable to pertussis and for the same reasons. There still exists the doubt that immunization during the early months of life may not persist. This, however, can be solved easily by the use of a combined diphtheria-pertussis combination at about 6-7 months of age. Thus the child given 3 doses of 1 cc. of pertussis vaccine during the first few months of life can receive a stimulating dose at the time diphtheria toxoid is given without any increase in the number of injections required. A stimulating dose of pertussis vaccine, either alone or in combination with diphtheria toxoid,

is indicated at the time of entrance to school, or even earlier, if the child is sent to a nursery school, or has school age siblings.

In passing, it should be mentioned that evidence is accumulating that in pertussis agglutinogen we may have the long-sought for simple test for pertussis immunity. This material, however, has not yet been released for general distribution.

Immunization against pertussis, therefore, may be begun as early as one month of age and in no case should be delayed beyond the 7th month. It may be given alone, or in combination with diphtheria toxoid, tetanus toxoid, or both.

TETANUS

The effectiveness of tetanus toxoid was satisfactorily demonstrated during the recent war. It would seem a waste to allow to lapse, the immunity produced in some 10,000,000 Americans by the injections of tetanus toxoid while in service. As the duration of immunity is not definitely established, booster doses should be given to these veterans at intervals of several years, and perhaps oftener to those engaged in occupations where the danger of tetanus is great. Certainly, booster doses should be given at the time of injury to any of those previously immunized.

Because children usually play close to the soil, there is a hazard of contamination with tetanus spores in any of their injuries received out of doors. It is added protection, therefore, to include tetanus toxoid with diphtheria toxoid when the latter is given during the first year, or to administer it singly during the second or third year. A booster dose is suggested one or two years after the original immunization and at the time of any injury subject to contamination with tetanus spores.

It is also strongly recommended that active immunization with tetanus toxoid be started about three weeks following any administration of tetanus antitoxin. Should another injury then occur, the use of tetanus antitoxin will not have to be considered and the risk of anaphylactic reaction will have been obviated.

Although this discussion has heretofore been confined to active immunization, at this point I wish to include a plea for the use of larger prophylactic doses of tetanus antitoxin. I heartily agree with Spaeth that 1500 units is not sufficient and recommend that at least 5,000 units be employed. The Illinois Department of Public Health will shortly begin to furnish that size package instead of the 1,500 unit size.

SCARLET FEVER

We do not recommend the use of scarlet fever toxin as a mass immunization procedure in the general population. Although many have reported a smaller incidence of scarlet fever in immunized groups, as compared to control groups, we still feel that the toxin immunizes only against the erythrogenic phase of the disease and not against bacterial invasion. In addition, the severity of the reactions encountered from the Dick antigen and the frequency of injections are such as to discourage its use in view of the relative mildness of scarlet fever today.

There are, however, certain population groups such as nurses and residents of children's institutions, where the risk of scarlet fever is great. In such groups it is perhaps desirable to immunize for whatever degree of protection may be afforded. Likewise, the private physician may have patients in whom the need of some added protection, however little, is desirable. It is quite justified to seek a reversal of the Dick test in such instances. The use of tannic acid precipitated scarlet fever toxin given intracutaneously in three doses of 0.1 cc. each of graduated strength is relatively free of reactions and produces a satisfactory percentage of Dick test reversals in most children and in many adults. In the latter group it is generally advised that four doses be given instead of the usual three.

TYPHOID FEVER

The efficacy of typhoid vaccination has been well established. The occasional reports of typhoid fever in the immunized are not suprising for no immunization procedure gives an absolute degree of protection. It is important to remember, however, that typhoid fever among the vaccinated is usually atypical, and some reports indicate a relatively high incidence of complications in such cases — probably as a result of the difficulty and the consequent delay in establishing the diagnosis.

Typhoid immunization is indicated where, because of occupation or local sanitary conditions, the risk of exposure is great. Of all the occupational groups, nurses and laboratory workers are most exposed. Those, whose occupations or travels

take them into areas where the water supply is not known to be from an approved source, should be immunized. Institutional populations, especially in mental hospitals where personal hygiene is poor, also require this protection.

The severity of the reactions encountered from typhoid vaccine remains the greatest drawback to this procedure. The percentage of reactions is still fairly high and unquestionably was increased when the bacterial content of the vaccine was increased from 500 million organisms per cc. to 1000 million.

The addition of Para A and Para B organisms also increases the number of reactions. Because of the low incidence of these two infections in Illinois, we do not recommend the general use of the triple vaccine. It is available for the use of physicians when so desired, however.

A boon to those individuals requiring a constant level of protective immunity has been provided by the evidence that a single annual booster dose of ½ cc. subcutaneously, or 0.1 cc. intracutaneously, following the initial series of three injections, will serve to keep the antibody level sufficiently high. To maintain a high level of immunity, the booster dose should be given annually as mentioned, but individuals given a single booster dose of antigen at even longer intervals often show an immunity response superior to that afforded by the original complete course.

The standard course of typhoid immunization is still ½, ½ and 1 cc., subcutaneously at intervals of 7 to 10 days. Experience with other types of immunization suggests that a longer interval between doses would probably enhance the immunity afforded.

INFLUENZA

Much has been written and said regarding influenza virus vaccine during the past few years. There is little doubt that the use of combined A and B influenza virus vaccine provides a significant degree of protection against the clinical types of influenza for which these organisms are responsible. The disease as currently seen is relatively mild and the desirability of widespread immunization is still unsettled. As we learn more about the cycles of influenza and increase our ability to forecast epidemics of the disease, the question may be answered for us by the public, who will request whatever protection is afforded. Certainly during the past winter season, industry in general thought it advantageous to offer influenza vaccine to employees. It will probably continue to be used extensively among those living or working in closely organized groups.

ROCKY MOUNTAIN SPOTTED FEVER

Since the recognition in 1934 of the first case of Rocky Mt. spotted fever in Illinois, a total of 200 cases of the disease have been reported from 74 of the State's 102 counties, with a case-fatality rate of about 15%. In 1946 Illinois experienced its highest incidence, as 41 cases were reported. The wide distribution of the disease throughout the State indicates that the common wood-ticks of Illinois are infected with the Rickettsia rickettsi. It may be well, therefore, for all persons, who, because of residence or occupation, are exposed to the bite of of ticks, to consider the use of Rocky Mt. spotted fever vaccine. If intended to be used, it should be given in the spring. The protection does not last beyond a year and the injections must be repeated annually.

SUMMARY

As a result of the decline over the years in the incidence of many communicable diseases, those occasional contacts with various organisms which served to produce natural immunity or to reinforce artificial immunity, have lessened markedly. In order to prevent the development of a highly susceptible population, it has become necessary to (1) extend immunization to a wider age group, beginning earlier in infancy and extending more into adolescence and adulthood, and (2) to use "booster doses" and revaccination more frequently.

The development of antigens which will produce immunity in the very young and of antigens which will not cause severe reactions in older individuals, is proceeding.

The use of various combinations of diphtheria toxoid, tetanus toxoid and pertussis vaccine is justified.

DISCUSSION

Dr. Edward A. Piszczek, Chicago: Regarding the re-vaccination period, we have been advising re-vaccination every 5 to 7 years. Dr. Sievers recommends a three year period and I would like him to elaborate on that a little further.

Dr. Jerome J. Sievers, Springfield, Illinois: I don't have any figures to prove that three years is better

than one year, five or seven. Nothing less than yearly re-vaccinations can be considered safe. We picked three years as the most practical from our standpoint.

Dr. Edward A. Piszczek, Chicago: In New York recently there was a report of a case of smallpox brought in from Mexico which had an 11-day incubation period. The smallpox we encounter in this area has an incubation period of 12 to 16 days, even 19 days, so probably the period of vaccination protection would depend upon the virulence of the strain. If virulent, we would vaccinate every 6 months, or with the common strain prevalent, probably 5 to 7 years.

Dr. Jerome J. Sievers, Springfield, Illinois: It almost goes without saying, that in the presence of an epidemic, everybody should be vaccinated regardless of any schedule.

Dr. Winston H. Tucker, Commissioner of Health, Evanston, Illinois. We all know that the fatality rate from pertussis is highest in children under six months of age. Several investigators have already shown that the morbidity and mortality rates from pertussis can be markedly reduced in infants when pertussis vaccine is first administered as early as one month of age. Dr. L. W. Sauer and I have been working on pertussis immunization in young infants during the past year, and, at the present time, we administer the first dose of pertussis vaccine when the child is three months of age. An alum precipitated mixture of pertussis vaccine and diphtheria toxoid is used for this purpose, but because small children do not develop antibodies readily, four doses of 0.5 cc of the mixed antigen are administered at three, four, five and six months of age. In addition, we are now routinely injecting stimulating doses of 0.5 cc of the same mixed antigens when the child enters a day nursery at two or three years of age, and again at five years of age, just prior to entrance to school.

Dr. Sandor Horwitz, East Peoria, Illinois: The Public Health Department advocates five-year revaccination periods for smallpox. From my personal experience—I have been through several epidemics of smallpox, the last one while Health Commissioner of Peoria, 1929-30, covering 200 cases—I am strongly of the opinion that if vaccination is done in early life, preferably during the first year of life, immunity is more or less perpetual.

Checking up on cases during epidemics, with the exception of one adult, I did not find a single case that showed signs of a previous successful vaccination. This one adult had been successfully vaccinated just a year before he came down with smallpox.

Therefore, early vaccination, in my opinion, may be considered a means of perpetual immunity against smallpox.

SKIN COMPLAINTS OFTEN FIRST SIGNS OF UNDERLYING MENTAL DISEASE

Certain skin complaints often are among the first signs of an underlying mental disease, according to two Chicago doctors, Theodore Cornbleet, M.D., and Meyer Brown, M.D., from the Department of Dermatology of the University of Illinois College of Medicine and the Department of Nervous and Mental Diseases of Northwestern University Medical School.

Writing in the January 17 issue of *The Journal of the American Medical Association*, the writers observe that disturbed sensations of the skin which cannot be traced to any rational source should always be suspected. Some of the most common of these are intense itching which develops suddenly, a feeling of numbness, tingling, burning, drawing, heat or cold, a sensation of insects crawling or of droplets falling on the skin.

An actual skin disorder may sometimes be accounted for by excessive washing or cleansing of the skin which springs from a delusional idea, the doctors point out. Unreasonable concern over the appearance of some simple condition such as a few additional facial hairs or moles or increased dryness or oiliness of the skin, as well as complete indifference to serious skin disease, also may indicate that a psychiatrist's services are needed. Excessive sweating, feelings of warmth, blanching or flushing or blushing may or may not be part of a set of psychiatric symptoms. More obvious are bizarre delusions involving the skin and self-induced injuries.

BUTTER, MARGARINE SHOWN TO HAVE EQUAL NUTRITIONAL VALUE

2-Year Experiment Reveals No Difference In Health Between Children Fed Butter And Others Fed Margarine

A two-year study of 267 children reveals no difference between butter and margarine fortified with vitamin A so far as their effects on growth and health are concerned, according to a study from the Department of Pediatrics, University of Illinois College of Medicine, Chicago, which is reported in the February 7 issue of *The Journal of the American Medical Association.* The investigators who made the study are Harry Leichenger, M.D., George Eisenberg, M.D., and Anton J. Carlson, M.D., Ph.D.

"Two groups of children were included in the study, which covered a period of two years," they write. "One group received only margarine as the table fat in the diet. It was used on bread and vegetables, as well as in the making of pastry and in frying. Fortified margarine was supplied by a number of the various companies now manufacturing the product and was the same as that sold to the public. The margarine used was all derived from vegetable fats, and contained no fat from animal sources. The second group of children used only butter for the same purposes.

"The margarine group lived in an institution housing 130 children ranging in age from three to 16 years. The children were half-orphans, for the most part from broken homes. They attended the nighborhood schools and returned to the institution for lunch. Samplings also indicated that the children were served margarine on their occasional visits to families outside the institution.

"The butter group was in another institution some 10 miles away. It included 125 children ranging in age from six to 17 years, who were mostly orphans.

"The diet in each institution was carefully supervised by trained dietitians and so regulated that 25 to 30 per cent of the total calories were supplied by fat. The margarine constituted approximately 65 to 70 per cent of the total fat calories.

"All of the children in both groups were weighed and measured each month under medical supervision. A careful check was made from time to time to be sure that weights and measurements were accurately determined. Routine red blood cell counts and hemoglobin determinations were made on each child after the study was started and again one year later. Specialists in pediatrics supervised the medical care of all the children. A record was kept of the character and duration of all illnesses contracted by the children.

"All those records of children who were studied less than six months were discarded. About 40 in each group were so eliminated, leaving 160 records in the margarine group and 107 in the butter group.

"Growth of the group fed margarine, as determined by increases in height and weight, was comparable to that of the children fed butter and to standard height and weight values for the same age group.

"Furthermore, it was noted that in the margarine group there was no increase in the amount of illness. Illnesses in general had been on the decline in the margarine group for the last four or five years, and this decrease in the incidence of illness continued during the period of the study. This compares with conditions present in the community for the last five years.

"It was interesting to observe how the children accepted margarine. When it first made its appearance on the table—in its white form—and the study was explained to the children, the younger children promptly accepted it. The children in the older age group did not take to it too kindly. Very shortly thereafter, however, a shipment of colored margarine came in. This was cut up into the usual pats and all the children then ate it readily and liberally. Thereafter it was always served cut in pats and colored.

"At no time during the period of the study was it considered that vitamin A played any definite role in the results of the study. The reason, of course, is that all the margarine used contained 15,000 units of vitamin A per pound—which is equal to or greater than the amount present in average butter.

"Blood studies showed that there were no significant differences between the margarine or butter groups.

"The children in the margarine group experienced a high degree of good health during the study, and in comparing their health to that of the butter group it appears to have been much better.

"When infirmary records are compared it is readily seen that the margarine group fared much better than the butter group. We are not making any claims that the margarine group were healthier simply because their diet contained margarine. Other variables are more likely to account for their better health.

"At no time during the course of the study did either institution experience any type of epidemic, and no doubt this may in part be due to the fact that both institutions practiced accepted preventive measures on all their children."



Case Reports

TYPHUS FEVER IN ILLINOIS

SANFORD A. FRANZBLAU, M.D., AND
HUSHANG JAVID, M.D.
CHICAGO

Athough typhus is rare in Illinois, we must be alert to the possibility of rickettsial infections. Recent reports of new rickettsial diseases[1, 2], the increased scope and speed of our travels, and the frequency with which we are confronted by obscure syndromes make this report timely.

Since we now have, in para-aminobenzoic acid (PABA), a drug proved to be effective against rickettsiae[4, 5, 6], it is incumbent upon us to arrive at an early diagnosis. A glance at the accompanying table will emphasize the low incidence of recognized cases in this state.

CASES OF ENDEMIC TYPHUS*

Year	In U.S.A.	In Illinois	In Other Northern East Central States
1946	3,366	0	Ohio 2 Indiana 1 Michigan 2
1945	5,180	1	Ohio 6
1944	5,353	0	Ohio 5 Indiana 1 Michigan 1
1943	4,517	1	Indiana 1 Wisconsin 1
1942	3,725	0	Michigan 3 Ohio 1
1941	2,780	1	Ohio 2 Michigan 2 Wisconsin 1
1940	1,879	0	Ohio 2 Indiana 1 Wisconsin 1

*Values obtained from Public Health Reports of the U.S. Public Health Service.

From the medical service of the Research and Educational Hospital of the University of Illinois, 1819 West Polk Street, Chicago, Illinois.

Case No. 109769: This 60 year old white woman worked as a helper in a hospital supply room. She became ill on January 25, 1947, with extreme weakness, severe headache and a fever of 102°F. These, the cardinal symptoms of onset of most rickettsial diseases, persisted and became more severe. She was seen by a physician on February 3rd when sulfadiazine and bicarbonate of soda were prescribed. No rash was noted up to this time by either the physician or members of the family.

She was admitted to the medical service of the Research and Educational Hospital on the 12th lay of her illness in a stupor from which she could not be aroused. The temperature was 104° F., pulse 100, respiration 24 and blood pressure 115/50. Over the trunk, arms and thighs was a typical typhus rash which was recognized as such by one of us (H.J.) who had received his medical training in the near East where typhus is fairly common. The rash was composed of light red, discrete maculo-papular zones from one to four millimeters in diameter without any crusts or vesicles. It bore a resemblance to a measles rash except that the face was spared. The tongue was parched and the pharynx was dry and beefy red in color. There was evidence on examination of the chest of fluid in the right base and right lower lobe pneumonia, both of which were confirmed by x-ray findings (Figure 1). The spleen was not enlarged. The ocular fundi were normal. The pupils were round, small and equal and reacted to light. The neck and leg Brudzinski as well as the Kernig sign, were all normal. The urinary bladder was distended and required catheterization.

The patient was given infusions of physiolog-

ical saline solution and glucose to combat the dehyration and because of the presence of bronchopneumonia was given 50,000 units of penicillin intramuscularly every two hours. By the next day many small petchial hemorrhages were noted in the rash, but the patient had improved to the point where she was able to respond to questions. On the third hospital day (the fourteenth day of illness) her blood pressure was 90/45 and the pulse was thready and irregular. An electrocardiogram showed frequent auricular premature systoles. The fever which ran up to 103°F. for the first four hospital days (Figure 2) gradually subsided to normal in the next four days. Except for some slight pleuritic pains in the right chest accompanied by a fever of one degree late in the convalescence, the patient made an uneventful recovery. Although a diagnosis of typhus fever purely on clinical grounds had been considered as early as the second hospital day, it was not until the thirteenth hospital day that definite proof in the form of laboratory tests was forthcoming. By this time the patient was well on the way to recovery and therapy with PABA no longer was indicated.

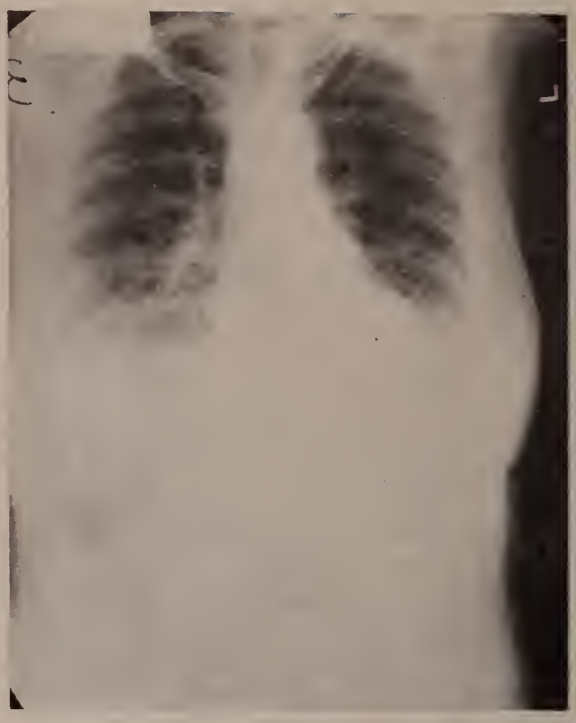


Figure 1

Laboratory data: The hemograms are tabulated below:

Date	Day of Illness	RBC (Millions)	WBC (Thousands)	Differential in Percent Neutros	Lymphs	Monos	Eosins	Basos	Hb (Gm %)
2-5-47	12		17.5	72	25	3	0	0	12.0
2-6-47	13	3.1	16.0	78	17	4	0	0	12.5
2-21-47	28		8.2	53	36	8	1	1	
2-26-47	33	3.0	5.2	48	41	11	0	0	
3-6-47	41	3.1	4.7	33	67	1	0	0	12.2

Platelets were adequate throughout. Blood chemistries on admission showed an NPN of 42 mgm %; whole blood chlorides were 73 m.e. l. (426 mgm % as NaCl); the HCO_3 ion content was 34.6 m.e. l. (77 vol. % CO_2 combining power); the serum albumin was 3.7 gm %; and the globulin 3.5 gm %. One month later the NPN was 37 mgm %; the creatinine 2.0 mgm %; the HCO_3 ion 27.9 m.e. l. (62 vol. %); the serum albumin was 4.8 gm %; and the globulin 2.6 gm %. Blood sulfadiazine on the day after admission was 14 mgm %. A spinal fluid examination was performed on the fifteenth day of illness and showed a slightly elevated pressure with normal dynamics, normal cell count, proteins, glucose, chlorides, Wasserman reaction and colloidal gold curve.

Cultures of urine and stool were negative. Blood cultures taken on the day of admission and incubated aerobically, anaerobically and in 10% CO_2 were likewise negative. This is in keeping with the fact that thus far rickettsiae have been grown only in living tissues. Guinea pig inoculations with patient's blood were performed on the second hospital day, but the characteristic fever and scrotal swelling produced in these animals by rickettsiae did not occur. Such a result was not surprising since this was already the thirteenth day of illness. Agglutinations for typhoid and paratyphoid were negative on several occasions. Agglutinations with Proteus OX-19 (the Weil-Felix reaction) in significant titer, (i.e. greater than 1:80), first appeared on the twenty-fourth day of illness, but a finding of definite diagnostic value, namely, a rise in titer from 1:40 to 1:80 occurred between the thirteen and eighteenth days of illness (Figure

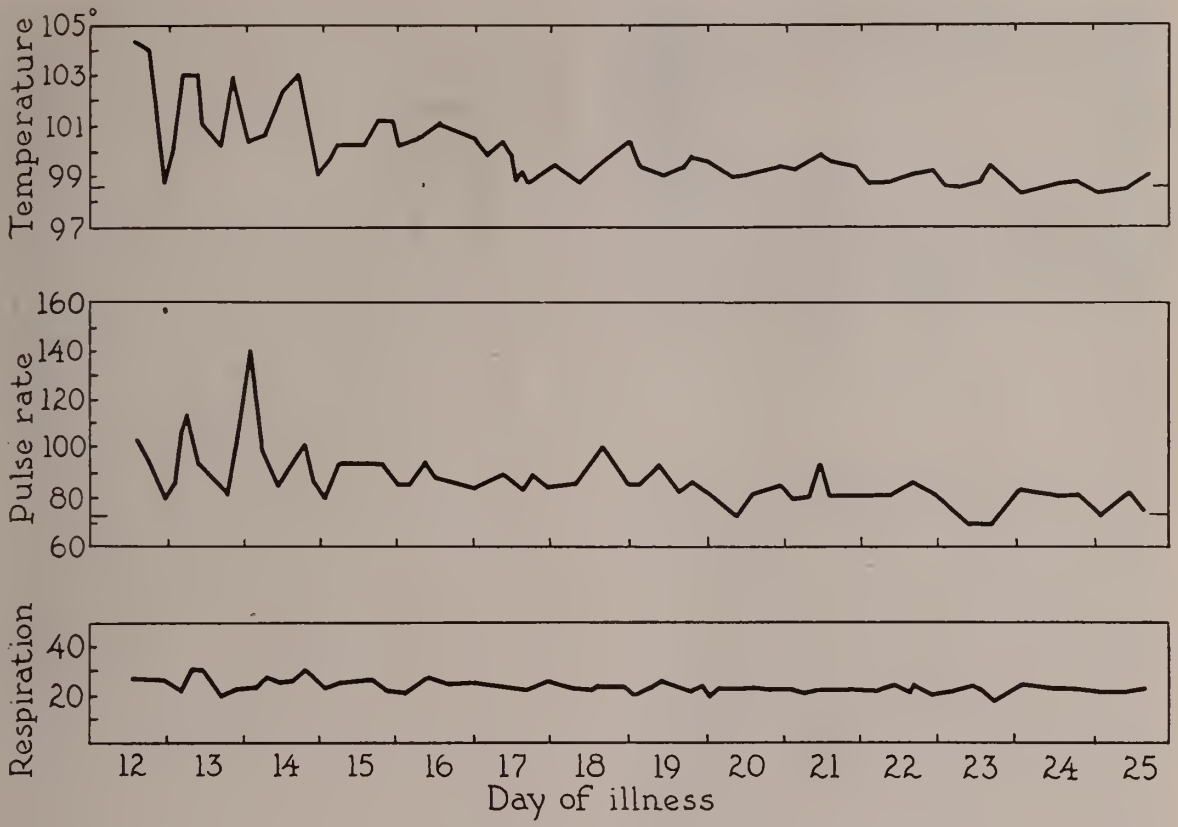


Figure 2

3). Agglutinations with Proteus OX-2 and OX-K, which are positive in Rocky Mountain spotted fever and scrub typhus respectively, were negative on several occasions. Specimens of patient's serum collected under sterile precautions on the fortieth day of illness and submitted to the National Institute of Health, Washington 12, D.C. for complement fixation tests with the various rickettsiae showed the following results:

"Q" Fever)
Rickettsialpox) Negative
Rocky Mountain Spotted Fever)
Endemic Typhus Fever) Positive 1:512

Follow-up x-rays of the chest showed clearing of the pulmonary lesion and disappearance of the pleural fluid.

Comment: Awareness of the possibilities is fifty percent of the diagnostic armamentarium.

Despite careful questioning of the patient, friends and relatives, no clues could be elicited regarding any possible source of the infection. The patient could not recall being bitten by any flea, louse, tick or mite, and on admission there

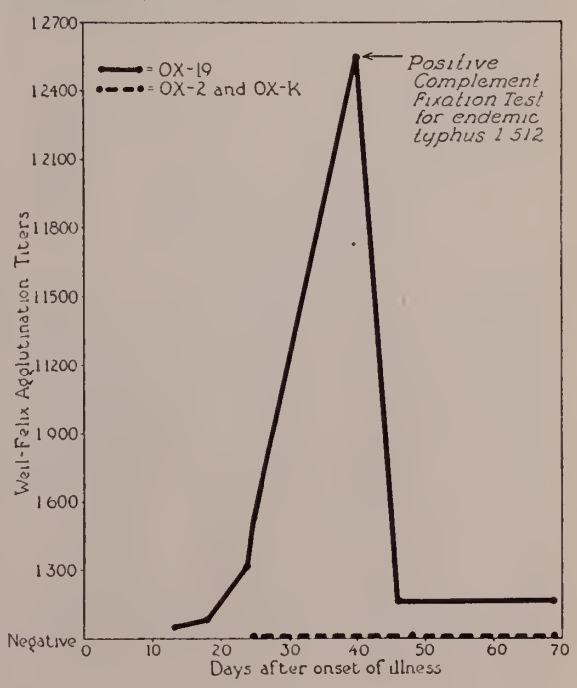


Figure 3

were no evidences of arthropod infestation in either the clothing or on the body.

Of some interest is the fact that in 1943 Brigham and Pickens (7) demonstrated that the common house mouse is one of the reservoirs of endemic typhus. Of further interest is the fact that this patient's residence is only three city blocks from the Chicago stock yards. To quote from an editorial on typhus in the July 1946 Annals of Internal Medicine (3), "Originally limited largely to the coastal cities, it has gradually spread Northward. It promises to become widespread in this country wherever rats abound."

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GLOMUS TUMORS

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Glomus tumors may be the cause of severe localized pain in an extremity or digit. They are abnormal, benign enlargements of the glomus bodies which are located in the subpapillary layer of the nailbeds, the tips of the fingers and toes, the palmar and plantar surfaces of the hands and feet, and occasionally in other parts of the body.

The normal glomus was first described by Suquet[1] in 1862 and shortly afterwards by Hoyer[2]. But it was not until Masson's report in 1924 and the more recent excellent studies of Popoff[4] in 1934 that the histologic picture of the glomus was clearly understood. Essentially the typical glomus consists of an afferent artery, an arteriovenous anastamosing vessel which is a direct continuation of the artery, and a peripheral encircling collecting vein. The anastamosing vessel is known as the Suquet-Hoyer canal. It is tortuous and often coiled in the shape of the letter S and has a narrow lumen and a thick endothelial and muscular wall. It is surrounded by a plexus of non-medullated nerve fibers and by numerous preglomic arterioles which arise from the afferent artery proximal to the anastamosing vessel to supply the constituents of the glomus. The whole body is surrounded by an indefinite layer of fibrous tissue.

Popoff[4] found that in the normal adult there were between 10 and 24 glomus bodies per square centimeter of surface area in the big toe and thumb. It is believed that the contraction and dilatation of the anastamosing vessel is under the control of the local and general vasomotor mechanism and that the function of the glomus is to regulate the local arterial and venous pressures and the local skin temperature.

In 1924 Masson[3] was the first to describe a tumor of the glomus. Since then the condition has become known widely and numerous case reports have appeared. In 1941 Beaton and Davis[5] reported 3 cases of their own and collected 271 cases from the literature. The glomus tumor is a benign enlargement of the normal glomus. On section it seems to be almost entirely composed of tortuous dilated blood vessels surrounded by non-medullated nerve fibers. In the walls of the anastamosing artery the smooth muscle is partially replaced by large pale "glomus" cells of the epitheloid type with clear or vacuolated cytoplasm. Numerous nerve endings are present between these cells.

Trauma is believed to be one of the causative factors in the development of the tumor. They vary in size from 2mm. to 3 or 4 cm. in diameter, and usually appear singly, although multiple tumors have been found in other parts of the extremities.[6] The outstanding symptom is exquisite tenderness in the involved area. Extreme changes in the temperature locally may initiate a paroxysm of pain.

When the subungual region is involved there may be a visible deformity of the nail and ero-

From the Dept. of Surgery, Michael Reese Hospital, Chicago, Ill.

sion of the phalanx as seen on roentgen examination. In other parts there may be no evidence of the tumor except for a minute bluish area in the overlying skin. Elevation of the skin temperature at the site of the tumor has been reported. Pinpoint pressure directly over the tumor produces the severe pain of which the patient complains in all cases. This is the most significant diagnostic sign. As a rule the diagnosis is not difficult if the examiner will bear in mind the possibility of a glomus tumor as a cause for local excruciating pain in an otherwise normal appearing skin.

The unusual locations of the glomus tumors in our cases prompted this report.

CASE REPORT

J.R., male, 39 years old, complained of severe local pain in the left suprascapular region of 8 years duration. At times the pain radiated up to the head and neck and down the left arm. The slightest pressure in that region would produce the pain and occasionally he would be awakened by a stabbing pain in that area which would last from a few minutes to one half hour. His condition had been variously diagnosed from arthritis and neuritis to neurosis and he had even been given psychiatric care without relief.

On examination a 1 mm. bluish area was found in the skin 1 cm. above the middle of the left scapular spine. Pinpoint pressure over this area and for about 2 mm. around it reproduced the pain. There was no visible or palable tumor. The local skin temperature was normal both before and after the pain started. Infiltration of the area with 2cc. of 1% procaine completely abolished the tenderness and the referred pain. General examination of the patient including blood count and urinalysis was essentially negative.

A tentative diagnosis of glomus tumor was made and the involved skin was excised under local anesthesia. An 8 mm. soft, purplish, spherical tumor was found attached to the skin at the point of bluish discoloration. (Figure 1) Miscroscopic examination revealed a typical glomus tumor. The patient has been free from pain since the operation.

CASE REPORT

L.L., Male, 50 years old, complained of a

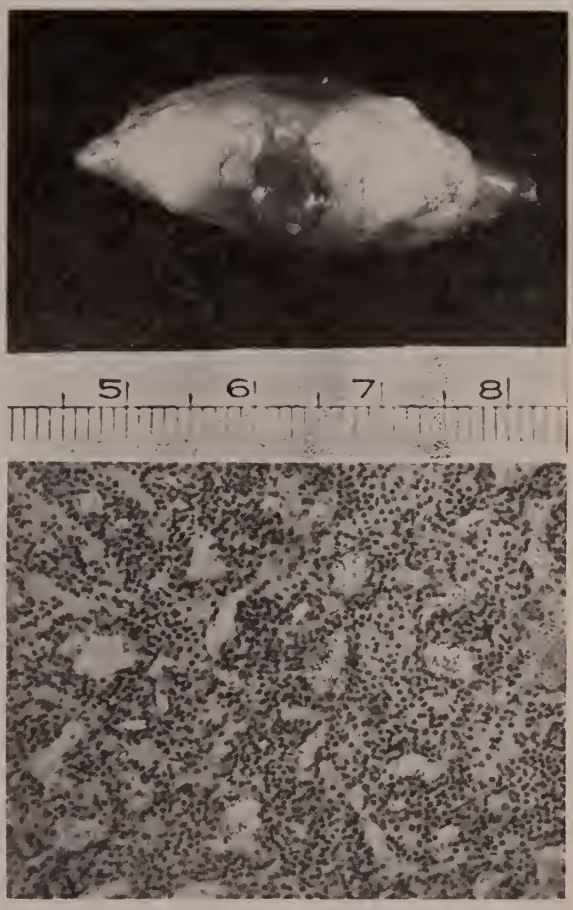


Figure 1. (Top) Gross appearance of glomus tumor, and (Bottom) a. photomicrograph. H. & E. stain x160, showing marked vascularization and "glomus" cells.

painful bluish nodule over the right knee of 12 years duration. The pain was brought on by the slightest pressure over the area and was excruciating.

On examination a bluish area 8 mm in diameter was found in the skin medial and just below the right patella. It was slightly raised and was 1.2°C. warmer than the surrounding skin. A firm nodule of the size of the bluish area was palpated just below the skin. It was extremely painful. Infiltration of the area with 2 cc of 1% procaine relieved the pain. General examination of the patient was essentially negative.

A clinical diagnosis of glomus tumor was made. The involved area was excised under local anesthesia. A 12 mm, purplish, soft, well defined spherical tumor was found attached to the skin at the point of bluish discoloration. Microscopic examination revealed a typical

glomus tumor. The patient has been free from pain since the operation.

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ARMY MEDICAL DEPARTMENT OFFERS ADVANCED TRAINING

1. The U. S. Army Medical Department announces the availability of opportunities for advanced training and experience in the various special fields of medicine and surgery in overseas Army hospitals. These hospitals are registered with the American Medical Association, and this training may be acceptable by the specialty board as part of the period usually required to be spent in limited practice and experience prior to admission for examination. Interested members of the medical profession who have completed the formal training requirements for certification in one of the special fields are eligible to apply for these positions. On 1 January 1948 the following opportunities were available, and will be open until filled:

Specialty	*No. of Openings*
Eye, Ear, Nose & Throat	7
Obstetrics & Gynecology	14
Anesthesia	7
Ophthalmology	3
Otorhinolaryngology	3
Neurosurgery	1
Orthopedic Surgery	5
Thoracic Surgery	1
Plastic Surgery	1
Radiology	11
Internal Medicine	24
Dermatology	3
Neuropsychiatry	15
Pediatrics	10
Cardiology	2
Pathology	1

(There are also 21 positions in general surgery and 5 positions in urology, but these boards specify "supervised practice" and it has not yet been determined whether or not the hospitals will be approved by these boards. However, full approval of these specialties is being sought and inquiries are invited.)

Positions offered will be in the following hospitals:

Name	*Location*	*Bed Capacity*
97th General Hospital	Frankfurt, Germany	1000
98th General Hospital	Munich, Germany	1000
110th Station Hospital	Vienna, Austria	150
120th Station Hospital	Beyreuth, Germany	325
124th Station Hospital	Linz, Austria	150
130th Station Hospital	Heidelberg, Germany	250
250th Station Hospital	Regensburg, Germany	150
279th Station Hospital	Berlin,Germany	350
317th Station Hospital	Wersbaden, Germany	150
319th Station Hospital	Bremerhaven, Germany	600
385th Station Hospital	Nurnberg, Germany	350
387th Station Hospital	Stuttgart, Germany	453
388th Station Hospital	Giessen, Germany	250

These locations provide excellent facilities and equipment, a wealth of clinical material and the services of visiting consultants who are outstanding specialists in the various fields of medical practice. In addition, opportunities will be afforded to observe the work of notable scientists and physicians in German and Austrian Universities.

2. The applicant may avail himself of this training for periods of one, two or three years. Those applicants who are selected, and who hold reserve commissions in the Medical Corps, will usually be recalled to active duty in the highest grade attained prior to release from previous active service. Those who do not hold such reserve commissions will be tendered a reserve commission in the Medical Corps in keeping with their age, years of professional experience and prior service in any branch of the Armed Forces. Prior military service is not required. Individuals who are members of the U. S. Naval Reserve must transfer to the Army Reserve before being called to active duty. Families of married applicants will be allowed to accompany them to the place of duty. Suitable quarters are available. Families of individuals who do not declare their desire to serve for periods to exceed one year cannot be transported at Government expense.

3. Eligible physicians are invited to communicate with The Surgeon General, U. S. Army, Washington 25, D. C., for further information. Inquiries should include the following information:

a. Name
b. Address
c. Age
d. Nationality
e. Marital status
f. Dependents with age of each
g. Medical school and graduation date
h. Internship and date
i. Details of graduate training
j. Specialty and geographic location desired
k. Contemplated length of service
l. Details of prior military service

News of the State

PERSONALS · COMING EVENTS · MARRIAGES · DEATHS

CHAMPAIGN COUNTY

Society Election.—Dr. William H. Schowengerdt was chosen president of Champaign County Medical Society at its recent meeting, succeeding Dr. Willard L. Veirs. Other officers are Dr. C. H. Drenckhahn, vice president and Dr. J. J. Westra, secretary-treasurer. Dr. Earl Wise asked that his name be withdrawn as delegate to the Illinois State Medical Society and Dr. T. G. Knappenberger was chosen in his place. Dr. R. H. Smith is alternate delegate to the State Society. Dr. Glen R. Ingram is adviser for medical defense. The board of censors include Dr. Isidore Brill, chairman; Dr. John B. Christie and Dr. James B. Gillespie; executive committee, Dr. Arnold Leavitt and Dr. B. Smith Hopkins, Jr.

CHRISTIAN COUNTY

Society News.—Dr. A. R. Eveloff of the Springfield Clinic discussed "Methemoglobinemia in Infants" before the Christian County Medical Society in Taylorville, January 13, and Dr. E. Harold Ennis, also of the Springfield Clinic, "Office Gynecology."

CLINTON COUNTY

Fifty Years of Service.—Dr. J. A. Bauer, Germantown, was honored December 28 when St. Boniface Parish and the Chamber of Commerce of Germantown combined to celebrate his fifty years of service. At the evening banquet, the speakers included Dr. R. D. Roane, and Dr. J. Q. Roane, both of Carlyle, president and secretary-treasurer respectively of the Clinton County Medical Society.

COOK COUNTY

Personal.—Dr. Philip Thorek, Chicago, presented a paper on "Carcinoma of the Large Bowel" with motion picture demonstration before the Fort Wayne Medical Society, Fort Wayne, on January 6.—Olaf Bergeim, Ph.D., noted for research studies on chemical changes which occur in the stomach, has been promoted to the rank of professor of biological chemistry at the Chicago Professional Colleges, University of Illinois.—Dr. Albertine L. Rea, psychiatrist at the Chicago State Hospital, has retired, effective December 31. She held the position since 1920.

Organization of the Cerebral Cortex.—Dr. Percival Bailey, professor of neurology and neurological surgery, University of Illinois College of Medicine, will deliver the twenty-fourth Ludvig Hektoen Lecture of the Frank Billings Foundation, Institute of Medicine of Chicago, at the Palmer House, Friday evening, March 26. His subject will be "Organization of the Cerebral Cortex."

Research Awards Established.—The Borden Company Foundation, Inc., has contributed $2,500 to the University of Illinois for the establishment of research awards in medicine.

The gifts will be officially known as the Borden Undergraduate Research Awards in Medicine. They will be administered under the direction of Dr. John B. Youmans, dean of the college of medicine. An award of $500 will be made each year over a period of not less than five years.

All students in the graduating class of the college of medicine who have carried out undergraduate research in the medical field will be eligible for the award. It will be presented at the time of the recipient's graduation.

The Borden Company has stipulated that originality and thoroughness of research will be of primary consideration. The research must be "the most meritorious performed by all similarly eligible persons."

Chicago Physicians on Medical Mission.—Three Chicago Physicians returned early in February from a three week stay in Puerto Rico as participants in a medical mission sponsored by the United States Department of Interior. The Chicago physicians were Dr. Ernest E. Irons, Dr. John B. Youmans, and Dr. H. N. Sanford, all physicians associated with the University of Illinois College of Medicine. The purpose of the mission was to investigate the medical services now available for the indigent in Puerto Rico, and to submit recommendations for the improvement of those services. The Virgin

Islands were also visited. Eight physicians participated in the mission, which was managed by the American Medical Association. Dr. Youmans, in addition to participating in the mission, conducted experiments on tropical spruce in Puerto Rico.

Warren Cole Goes to England.—Dr. Warren H. Cole, head of the department of surgery at the University of Illinois, has been appointed Senior Scientist Attache to the United States Mission to Britain for Science and Technology. The mission will be conducted under the jurisdiction of the U. S. Department of State.

Dr. Cole left Chicago on Sunday February 8, to report in Washington, D. C., prior to sailing for England. He will serve with the mission for approximately three months as the representative in surgery.

The mission is designed to establish liaison with British scientists in various fields, including medicine, engineering, and chemistry. The representatives in medicine will visit numerous British clinics.

Dr. Cole has served as professor and head of the department of surgery at the University of Illinois since 1936. He previously was associated with Washington University at St. Louis, Mo.

Dr. Cole has held the office of president of the Society of University Surgeons and the Chicago Surgical Society. He has contributed more than 100 articles to medical literature, and has, in collaboration, written three books.

The Lewis Linn McArthur Lecture.—The twenty-fourth Lewis Linn McArthur lecture of the Frank Billings Foundation was delivered at the Palmer House, Friday evening, February 27, by Dr. Alfred Blalock, professor of surgery, The Johns Hopkins University School of Medicine, Baltimore, on "The Surgical Treatment of Congenital Cardiovascular Defects."

Isaac Abt Honored.—Northwestern University Medical School held a reception December 18 to honor Dr. Isaac A. Abt on the occasion of his eightieth birthday. Dr. Abt, who is professor emeritus of children's diseases in the medical school, was one of the first physicians in the nation to train for and practice in the field of pediatrics. Dr. Abt recognized and treated successfully the first case of infantile scurvy ever reported in the Chicago area. It was also Dr. Abt who administered the first dose of diphtheria antitoxin ever given in Chicago. It was he, too, who made the first incubators for premature babies, long before the modern devices were designed. Somewhat later, he planned the first electrically-operated breast pump. One of the prime movers in the organization of the Infant Welfare Society, Dr. Abt is also noted for the victorious battle he fought for pure milk for infants.

Born in Wilmington, Ill., in 1867, Dr. Abt moved to Chicago in 1875. He was educated in the city's public schools, and studied for a year at the University of Chicago before entering Johns Hopkins University for a pre-medical course. He returned to Chicago in 1889 to study for a medical degree at Northwestern University Medical School, then known as the Chicago Medical College. After he graduated in 1891, he served a two-year interneship at Michael Reese Hospital, and subsequently spent eighteen months in postgraduate study in Vienna, Berlin, and other European medical capitals.

Dr. Abt served as professor of diseases of children at the Women's Medical School at Northwestern from 1897 until the school disbanded as a separate institution in 1901. Later he was associate professor of children's diseases at Rush Medical College. He was recalled to the Northwestern faculty as professor of pediatrics in 1909. He officially retired, with the rank of professor emeritus of children's diseases in 1939.

The Isaac A. Abt Pediatric Foundation at Northwestern, to which funds in excess of $100,000 have been contributed by the physician's friends in his honor, furthers pediatrics research in the medical school and finances a fellowship in the field of children's diseases.

Emanuel Senn Provides for Hospital in Will.—A hospital will be established in Milwaukee and named after Dr. Nicholas Senn, according to a provision in the will of the late Dr. Emanuel Senn. He died December 14. His estate is left in trust to his widow, Alice. After her death, it will be used to establish the hospital.

Non-Technical Exhibit on Cancer.—A scientific but non-technical exhibit on cancer, designed for the purpose of educating the general public, has been planned by the Illustration Studios at the Chicago Professional Colleges of the University of Illinois.

The comprehensive exhibit will be developed at the request of the American Cancer Society. It is expected to be completed in approximately two years, and will be installed at the Museum of Science and Industry, 57th and Lake Michigan, Chicago. The exhibit will be created in the Illustration Studios.

Designed for lay consumption, the exhibit will further the growing public education program now being undertaken on a large scale for the American Cancer Society. The display is expected to cover the question "What is Cancer?" the cause of cancer, misconceptions regarding cancer, methods by which cancer spreads, methods of treatment, early diagnosis, cancer research, and current events.

The exhibit will be developed along entirely new lines, and will occupy a space approximately 60 feet by 40 feet at the Museum of Science and Industry. As a feature of the exhibit, one section will be devoted to a cancer information center where current information will be made available, and where discussion groups can meet and films can be shown.

The Illustration Studios completed an exhibit last summer, entitled "The Miracle of Growth." The exhibit, portraying the growth and development

of an individual from conception through adulthood, is on display at the Museum of Science and Industry.

Changes in Municipal Tuberculosis Sanitarium.—Recent resignations from the staff of the Municipal Tuberculosis Sanitarium, Chicago, include Dr. Leo M. Czaja, for twelve years general superintendent; Dr. Camillo E. Volini, for fourteen years superintendent of the clinics; Dr. Richard Davison, for fifteen years chief chest surgeon; and Dr. John Brosnan, a staff physician for seven years. Dr. Volini and Dr. Davison will continue as dispensary physicians. Dr. A. A. Friedman, for twenty-five years a dispensary physician at the sanitarium, succeeds Dr. Volini. Dr. John Michael Dorsey, professor of thoracic surgery, University of Illinois College of Medicine, succeeds Dr. Davison, and Dr. Hiram A. Langston, member of the staff of Northwestern University Medical School, will alternate with Dr. Dorsey.

University Lectures.—Dr. Andrew C. Ivy discussed "Physiology, Medicine, and Religion" at an assembly hour at the University of Illinois College of Medicine, February 4. Mr. J. Christian Bay, librarian emeritus, John Crerar Library, lectured on "The Students' Approach to Medical Literature" February 11.

Officers Named for Tuberculosis Advisers.—Dr. Morris Fishbein, Editor of The Journal of the American Medical Association, Chicago, was elected chairman of the board of physicians who were recently named by Mayor Kennelly to serve as medical advisers to the Municipal Tuberculosis Sanitarium. Dr. James H. Hutton, Chicago, was chosen secretary. Other members of the board are Drs. Robert G. Block, N. C. Gilbert, Henry L. Schmitz, Jerome Head, Josiah J. Moore, and Edward Levine.

Building Purchased to House Nutrition Institute.—Northwestern University has announced its purchase of the nine story Dunham building at 450 E. Ohio St. for its newly established Institute of Human Nutrition. The institute will specialize in research education and service involving nutrition, the *Chicago Tribune* reported.

Purchase of the building was made possible by an advance gift of $10,000 from Eugene Kettering, of the Electro-Motive division of the General Motors corporation. A drive for $1,000,000 to complete the purchase and to provide operating funds for nutritional research is now under way.

Dr. Tom D. Spies, world known nutrition authority, will direct the institute.

Report of Outpatient Visits.—More than 140,000 visits were made to the 22 outpatient clinics at the University of Illinois hospitals during the past year.

Official figures released by Dr. Myron C. Benford, assistant medical director, show a total of 140,424 visits for 1947. Patients who were treated for the first time numbered 10,684.

Two clinics, medicine and allergy, each handled more than 12,000 visits. The dermatology clinic ranked third with 10,581 visits.

An additional 6,500 patients received bed treatment last year at the University of Illinois hospitals. Hospital care and clinic treatment is limited to residents of Illinois whose cases are of educational and research interest, and who are referred by their attending physicians. Financial inability to provide for specialized medical services is a deciding factor in the selection of patients.

The hospitals have been forced to reject the applications of more than 100 clinic and bed patients daily because of inadequate facilities. Service facilities are used to full capacity, and most departments maintain hospital waiting lists.

Appointments at the Hektoen Institute.—At the annual meeting of the board of trustees of the Hektoen Institute for Medical Research, held on Dec. 22, 1947 at the University Club, the following appointments were made: Dr. John B. O'Donoghue, professor of surgery, Loyola University School of Medicine; Dr. Frederick H. Falls, chairman of the department of obstetrics and gynecology, University of Illinois College of Medicine, and Mr. Irv Kupcinet, as members of the board. Drs. Morris T. Friedell, Louis P. River, Oak Park, and Donald D. Kozoll, Evanston, were appointed as research associates, and Dr. William S. Hoffman as director of biochemistry according to J.A.M.A.

Dr. Armstrong Appointed to Presbyterian Hospital Staff.—Dr. S. Howard Armstrong Jr., Boston, has been appointed full time chairman of the department of medicine at Presbyterian Hospital, and will have charge of the department's educational and research work. He succeeds Dr. Ralph C. Brown as head of the department of medicine, heretofore an honorary position carrying no remuneration. Dr. Brown, having reached the retirement age, resigned June 1, 1947 and is now on the consulting attending staff. The hospital is enlarging its research activities by setting up a laboratory of medicine, which will be equipped early this year under Dr. Armstrong's direction, in buildings formerly occupied by Rush Medical College. Laboratories of pathology and biochemistry were established previously. Dr. Armstrong is a graduate of Harvard University Medical School, Boston, 1937, and has devoted the last seven years to graduate study of internal medicine at Harvard and the Massachusetts Institute of Technology.

Dr. Gradle Awarded Medal for Prevention of Blindness.—The first Pan American Medal of the National Society for the Prevention of Blindness in the United States was awarded January 10 to Dr. Harry S. Gradle, for many years a leading ophthalmologist in Chicago. Dr. Gradle is now retired and living in California. The award was made in Havana, Cuba, during the third Pan American Congress of Ophthalmology, of which Dr. Gradle was the founder and first president. Dr. Baudilio Courtis, Buenos Aires, Argentina, made the presentation to

Dr. Gradle in absentia; he was unable to be present because of ill health. The citation read: "For scientific contributions to knowledge about causes of blindness and impaired vision, for outstanding service in advancing education in ophthalmology, for distinguished leadership in founding the Pan American Association of Ophthalmology."

Dr. Gradle graduated from the Rush Medical College in 1906. He served as attending and later senior attending ophthalmic surgeon to Michael Reese Hospital, Chicago, and for several years he was chief of staff at the Illinois Eye and Ear Infirmary. He was active in many scientific societies and held a professorship at the University of Illinois College of Medicine.

Growth of Medical Library.—The Quine Library of Medical Sciences at the Chicago Professional Colleges of the University of Illinois now ranks as one of the largest university medical libraries in the nation with a total of 84,910 volumes.

Miss Wilma Troxel, medical librarian, reports that the Quine library has increased in size by approximately 34,000 volumes during the past decade. The library is now receiving 923 current journals.

The library's present rate of growth is over 4,000 volumes annually. Temporary relief for the acute shortage of shelving space in the library has been provided by the installation of additional book stacks containing room for 12,000 volumes.

A special effort has been made to fill in files of foreign periodicals for the war years. With the exception of German journals, nearly complete sets of most of the foreign titles which continued publication during the war have been received. In addition, about 300 volumes of French, German, and Italian medical works have come in through the Library of Congress cooperative project for the acquisition of wartime publications.

DE WITT COUNTY

Society Election.—Dr. Keith Rhea was reelected president of the De Witt County Medical Society for 1948 at the regular monthly meeting, December 10. Other officers are Dr. W. J. Nowlin, Farmer City, vice president, and Dr. W. R. Marshall, Clinton, secretary-treasurer. Dr. H. L. Meltzer, Clinton, was elected delegate to the Annual Meeting of the Illinois State Medical Society, and Dr. H. J. Schrag was elected alternate delegate. Dr. Schrag was also elected to the board of censors.

DOUGLAS COUNTY

New Officers.—Dr. C. K. Ross, Newman, was chosen president of the Douglas County Medical Society at its annual meeting December 18. Other officers are Doctors Edmund Kahan, Hindsboro, vice president, and J. O. Cletcher, Tuscola, secretary-treasurer. Dr. Irving H. Neece, Decatur, President of the Illinois State Medcal Society, gave the principal address discussing "Diseases of the Kidney."

DU PAGE COUNTY

Society Election.—Dr. E. H. Kupke, Naperville, was chosen president of the Du Page County Medical Society at its meeting in the new auditorium of the Memorial Hospital, Elmhurst, December 17, 1947. Other officers are Dr. T. R. Marquardt, Lombard, vice president, and Dr. A. R. Rikli, Naperville, secretary. Dr. Nathan Davis discussed geriatrics.

Hospital News.—A new $750,000 addition to the former Elmhurst Hospital is being opened early this year. There will be approximately 225 beds available to the physicians of Du Page County. A new pediatric department as well as a department of physical medicine has been opened, according to Dr. Martin F. Heidgen, director.

GREENE COUNTY

Society Changes.—Dr. F. Earl Walker, Roodhouse, was chosen president of the Greene County Medical Society, succeeding Dr. R. W. Paper, at a meeting of the society on December 12. Other officers chosen are Dr. Paul A. Daley, Carrollton, vice president; Dr. W. H. Garrison, White Hall, secretary-treasurer; and Dr. N. J. Bucklin, Roodhouse, censor. Dr. Ellsworth Black, guest speaker at the meeting, gave a very instructive lecture on "Peptic Ulcer."

LEE COUNTY

Hospital News.—Dr. Bruce D. Hart has resigned as a member of the staff of the Dixon State Hospital concluding twenty years of service there. He has accepted a new assignment at the Arizona State Hospital at Phoenix.—Dr. Elizabeth McDonnel has resigned as staff physician at the Dixon State Hospital. Dr. McDonnell has retired to her home in Oak Park, Illinois.

MADISON COUNTY

Personal.—Dr. Gordon F. Moore, Alton, has been certified by the American Board of Surgery.

PEORIA COUNTY

Society News.—Dr. Andrew C. Ivy, vice president in charge of the Chicago Professional Colleges, University of Illinois College of Medicine, addressed the Peoria County Medical Society, January 20, on "Role of Nazi Physicians in Concentration Camp Atrocities."

ROCK ISLAND

Society News.—Dr. Harold Swanberg, Quincy, discussed "Carcinoma of the Uterus" before the Rock Island County Medical Society at its meeting on January 13 at the Moline Public Hospital, Moline.

SALINE COUNTY

New Officers.—Dr. B. E. Montgomery, Harrisburg, was recently elected president of the Saline County Medical Society. Other officers are Drs. D. A. Lehman, Harrisburg, vice president; W. J. Blackard, Jr., Harrisburg, Secretary-Treasurer. Dr. Montgomery was chosen delegate to the Illinois State Medical Society and Dr. N. A. Thompson, Eldorado, alternate.

WHITESIDE COUNTY

Business Meeting.—Dr. Neil Marquis, Sterling, was chosen president of the Whiteside County Medical Society, succeeding Dr. I. Vandermyde, Morrison. Other officers are Dr. L. C. Johnson, Tampico, vice president and Dr. Glenn Pohley, Rock Falls, secretary-treasurer. Dr. H. L. Pettitt, Morrison, was elected legislative chairman. Dr. Raphael Isaacs, attending physician in hematology at Michael Reese Hospital, Chicago, was the principal speaker.

Society News.—Dr. Frederick Slobe, industrial physician of Chicago, addressed the Lee-Whiteside County Medical Society, January 12 at the Sterling Public Hospital, Sterling. Dr. Slobe's subject was "Trends in Occupational Health."

GENERAL

Regional Heart Meetings.—The first regional conference of the Illinois Heart Association was held on February 11. This meeting was conducted in Rockford. The second meeting was held in Springfield, March 4 and the third one will be sponsored in East St. Louis, April 1. These three conferences were designed to meet the needs of the medical profession and are held in conjunction with the county medical society in each area.

Former Chicagoan Awarded Practitioner's Medal.—Dr. Archer C. Sudan, formerly a member of the staff of University of Chicago School of Medicine, was named "Family Doctor of the Year" by the American Medical Association, receiving the General Practitioner gold medal and certificate awarded for exceptional service. Dr. Sudan graduated at Rush Medical College in 1926, becoming a member of the teaching staff at the University of Chicago the same year. Again in the same year, he went to Kremmling, Colorado, a mountain village of 567 inhabitants "to do a little fishing" and remained there for general practice.

903 New Doctors Licensed in State.—During 1947 the state department of registration and education issued 903 new licenses to physicians and surgeons, according to Frank G. Thompson, department director. The highest number of new licenses ever granted in a single year was 1082 in 1946.

Last year 549 physicians and surgeons left Illinois for other states, 214 of them removing to California.

HEALTH DEPARTMENT ACTIVITIES

Save the Teeth Campaign.—Designed to offset an ever increasing prevalence of dental defects among school children, a new kind of "save the teeth" campaign was to be launched soon in Illinois, according to an announcement January 8, by Dr. Roland R. Cross, state director of public health.

Along with regular brushing of the teeth, the new program will focus attention on three factors which are among the most effective known means of preventing dental decay: application of sodium fluoride to the teeth; use of a new dentrifice containing di-basic ammonium phosphate and urea; and a reduction of sugar and sweets in the diet of children. The program was approved at a recent meeting of representatives of all local dental societies of Illinois, all dental colleges in the state, and the Illinois department of public health.

"Studies made by a number of investigators indicate that all three factors to be emphasized in the program are effective in the control of dental caries," Dr. Cross stated. He pointed out that sodium fluoride applied to the teeth has been shown to reduce caries by about 40 per cent. "A special demonstration among approximately 3,000 school children in the use of the new dentifrice is already under way in Aurora and Peoria," Dr. Cross said, "and a demonstration in the use of sodium fluoride will be started in a specially selected area as soon as practicable."

In emphasizing the need for the new dental program in the state, Dr. Cross cited studies showing that the prevalence of dental defects among school children increased 26 per cent from 1926 to 1946 despite the fact that all other physical defects among these same children showed a reduction of 32 per cent during the 20-year period.

"In 1946 examinations of more than 600,000 school children revealed 436 dental defects per 1,000 children, as against a rate of 344 per 1,000 children in 1926," Dr. Cross said. "All other physical defects in the same children declined from 561 per 1,000 in 1926 to 382 in 1946."

Report on Birth Rate.—For the second successive year the Illinois birth rate has reached a new high. Dr. Roland R. Cross, state director of public health, recently said that 191,866 live births were registered in Illinois during 1947 with a corresponding rate of 23.3 births for each 1,000 inhabitants.

Dr. Cross said that there has been a great boom in births throughout the entire United States ever since the fall of 1946. Because of this, Illinois will very likely still be among the states with lowest birth rates, just as in 1946, when it ranked 45th. The boom has been gradually receding since the October 1946, high point. The outlook for 1948 is a continued recession in the birth rates.

The most significant health note in the 1947 record, according to Dr. Cross, is that the gains in saving the lives of young babies have been preserved in spite of the heavy load on hospitals and the practicing physicians. The 1947 infant death rate of 28.4 deaths among babies under one year old for every 1,000 births is a new milestone in the battle to save life in that dangerous first year. Premature birth is still the most frequent cause of death among babies and four out of every five babies who die in the first year of life die in the first month.

Although the figures on maternal deaths are still incomplete, Dr. Cross is confident that the high birth rate will be accompanied by an unusually low maternal mortality . Indications are that only about 12 mothers will have died from maternal causes for every 10,000 babies born alive.

The 92,230 deaths in the state in 1947 account for

a general death rate of 11.2 deaths per 1,000 population.

"While this is higher than the 1946 death rate of 10.8, the increase is not alarming", Dr. Cross stated. "Greater mortality from heart disease accounts for almost all of the net increase. Increasing mortality from heart disease is evidence of the fact that our population is aging and that greater efforts in the prevention and management of heart disease offer the only hope of preventing a steady rise in the general death rate."

The principal vital statistics rates for 1947 are:

	State	Chicago	Downstate
Live births per 1,000 population	23.3	23.1	23.5
Deaths per 1,000 population	11.2	10.9	11.4
Infant deaths per 1,000 live births	28.4	27.2	29.4
Stillbirths per 1,000 live births	18.9	19.9	18.1

"For The Common Good"

"Help Your Public Health Nurse Help Your Community" is the theme of the 1948 observance of Public Health Nursing Week throughout the nation, April 11-17. The First District of the Illinois State Nurses Association, covering Cook, Lake and DuPage counties, was charged with launching the organization to develop a suitable program in its area. Miss Ann Fox, Chicago, Secretary, Educational Committee, Illinois State Medical Society, was elected general chairman, and Miss Margery MacLachlan, Chicago Council on Community Nursing, secretary. Chairmen of organization committees include Miss Yvonne Ramsey, Billings Hospital, Chicago, Press Committee; Mrs. Ingeborg Uhlmann, Oak Park Schools, Radio Committee; Mrs. Elizabeth Newton and Mrs. Madeline Roessler, Cook County School of Nursing and Cook County Department of Public Health, respectively, co-chairmen of Open House and Schools of Nursing; Mrs. Gladys Moulton and Mrs. W. E. Heim, Chicago, district chairmen of the PTA, co-chairmen of the Club Committee; Mrs. Roberta Baker, Chicago, health educator, Institute of Tuberculosis of Chicago and Cook County, Exhibit Committee, and Mrs. Thelma Cline, R. N., Cook County Department of Public Health, Speakers Bureau.

Members of the respective committee include representatives of all health and allied agencies in Cook, Lake and DuPage counties.

Visitors in the Chicago office of the Illinois State Medical Society recently were Dr. A. V. Friedrichs, and Mr. Frank Lais Jr., chairman and executive director, Council on Medical Service and Public Relations, respectively, of the Louisiana State Medical Society. Both are of New Orleans. One hundred each of "Doctors and Horses" and "The Doctor and His Medical Society" went back to New Orleans with the visitors.

Mr. Don Taylor, new public relations director of the Iowa State Medical Society, visited the Chicago Office, requesting specific information on procedure to develop speakers programs for lay groups. He also asked to spend a day in the office "to see how the wheels go 'round." This was done March 2.

Other executive officers who have requested specific information concerning the activities of the Educational Committee included Mr. Tom Walsh of the Medical Society of the State of New York and Mr. Dick Graham of the Oklahoma State Medical Association.

Mrs. Edna Spittler, developing new speakers program in the Bureau of Health Education, American Medical Association, spent two hours in the Chicago office studying procedure of arranging speaking engagements.

"The Doctor and His Medical Society," exhibit of the society, concluded the round of medical schools in Chicago with an extended visit to Northwestern University Medical School when Dr. Alexander Day called to prolong the exhibit for one week because of the interest of the senior students.

The exhibit is scheduled for the annual meeting of the Illinois Congress of Parents and Teachers in Peoria in April.

Conference Arranged Under the Auspices of the Postgraduate Education Committee of the Illinois State Medical Society: Dr. Robert S. Berghoff, Chicago, Chairman:

Tenth Councilor District in Murphysboro, March 11 (St. Clair, Monroe, Washington, Randolph, Perry, Jackson, Union, Alexander and Pulaski Counties); Jackson County Medical Society acting as host.

S. Glidden Baldwin, M.D., Danville, Eye Conditions Seen by the General Practitioner.

Edwin M. Miller, M.D., Chicago, Bowel Obstruction in Infants and Children.

Leo K. Campbell, M.D., Chicago, Diabetes.

William B. Serbin, M.D., Chicago, Appendicitis in Pregnancy.

Bernard E. Malstrom, M.D., Galesburg, Critical Study of 1,240 Consecutive Cases of Sodium Pentothal Anesthesia with New Method and Technic.

Alfred D. Biggs, M.D., Chicago, Intestinal Obstruction of the Newborn.

Percy E. Hopkins, M.D., and James H. Hutton, M.D., Chicago, Illinois Prepayment Medical Care Plan and Medical Public Relations, respectively.

Justin J. Cordonnier, M.D., St. Louis, The Medical and Surgical Management of Renal and Ureteral Calculi.

Julius Jensen, M.D., St. Louis, Electrocardiography.

Lectures Arranged Through the Scientific Service Committee of the Illinois State Medical Society: Dr. Robert S. Berghoff, Chicago, Chairman:

Dr. Alex J. Arieff, Chicago, Rockford Memorial Hospital School of Nursing, in Rockford, February 3, "Psychosomatic Medicine."

Dr. Henry Buxbaum, Chicago, Kankakee County Medical Society in Kankakee, February 10, on "Prolonged Labor."

Dr. John W. Huffman, Chicago, La Salle County Medical Society in La Salle, February 12, "Diagnosis and Treatment of Early Carcinoma of the Cervix."

Dr. Kenneth Penhale, Chicago, McDonough County Medical Society in Macomb, February 27, on "Traumatic Injuries of the Face."

Dr. Samuel H. Kraines, Chicago, Will-Grundy County Medical Society in Joliet, April 8, on "Psychosomatic Medicine."

Dr. James W. Sours, Peoria, Logan County Medical Society in Lincoln, April 15, on "Diabetes."

Dr. Harvey S. Allen, Chicago, Will-Grundy County Medical Society in Joliet, April 22, on "Burns."

Lectures Arranged Through the Educational Committee of the Illinois State Medical Society; Dr. Charles P. Blair, Monmouth, Chairman:

Dr. Frederick H. Falls, Chicago, American Lady Corset Company in Chicago, January 26, "Anatomical Structure of the Feminine Body."

Dr. Percy E. Hopkins, Chicago, Women's Civic Federation in Peoria, January 28, "Compulsory Health Insurance and the Illinois Medical Prepayment Plan."

Dr. Paul Starcevich, Chicago, Woman's Auxiliary to Will-Grundy County Medical Society in Joliet, February 10, "Acute Conditions of the Abdomen."

Dr. Harry H. Boyle, Chicago, A. E. Burnside School P.T.A. in Chicago, February 10, "Health of the Growing Child."

Dr. Robert R. Mustell, Chicago, Norwegian Lutheran Children's Home, February 15, "The Parent's Responsibility to Society."

Dr. Warren W. Furey, Chicago, Woman's Auxiliary to the Peoria Medical Society in Peoria, February 17, "Ten Point Program of the American Medical Association."

Dr. Marie Wessels, Chicago, Norwegian Lutheran Children's Home in Chicago, February 29, "Problems of Parenthood: Emotional Adjustment."

Dr. Harlan English, Danville, Lions Club, Gibson City, February 24, "Compulsory Health Insurance."

Dr. Robert R. Mustell, Chicago, Nathaniel Pope P.T.A. in Chicago, April 6, "Child Health Problems."

Dr. Bertha M. Shafer, Chicago, Glen Ellyn Jr. High School P.T.A. in Glen Ellyn, April 12, "What Parents Should Teach Their Children of Sex."

A film "When Bobby Goes to School" (Mead Johnson and Company), Hawthorne school P.T.A. in Chicago, April 13.

Drs. Edwin Hirsch, Franklin Fitch and Bertha Shafer, North Central College (Y.W.C.A. and Y.M.C.A.) in Naperville, April 14, "Sex: Premarital and Marital Aspects."

Dr. Harry H. Boyle, Chicago, Mason School P.T.A. in Chicago, April 20, "Rheumatic Fever."

Dr. Alfred D. Biggs, Chicago, Mason School P.T.A. in Chicago, April 20, "Rheumatic Fever."

Dr. Peter T. Gray, Sterling, Mendota Woman's Club in Mendota, May 3, "Superstitions About Health."

MARRIAGES

JOHN M. LANGSTAFF, Fairbury, Ill., to Miss Ruth A. Ford of Chatsworth, October 6, 1947.

DEATHS

CHARLES D. ALLISON, Gardner, who graduated at the Medical College of Indiana, Indianapolis, in 1896, died January 16, aged 76. He had practiced medicine over fifty years.

LOUIS FERDINAND ALRUTZ, Chicago, who graduated at the College of Physicians and Surgeons of Chicago, School of Medicine of the University of Illinois, 1904, died Nov. 26, 1947, aged 71, of coronary thrombosis. He had served on the staff of West Suburban Hospital, Oak Park.

GARNELL BAILEY, Evanston, who graduated at Meharry Medical College, Nashville, in 1931, died in the Evanston Community Hospital recently, aged 44, of hypertension.

JAMES GLEN BEATTIE, retired, Evansville, who graduated at the Barnes Medical College, St. Louis, Missouri, in 1898, died January 14, aged 82.

LUCIUS B. DONKLE, Chicago, who graduated at University of Illinois College of Medicine in 1903, died January 7, aged 70. He was senior surgeon at St. Bernard's Hospital for many years.

JOHN CASIMER DUBIEL, Chicago, who graduated at Loyola University School of Medicine in 1932, died in St. Luke's Hospital, February 3, aged 41.

CLIFFORD S. GOODMAN, Chicago, who graduated at University of Louisville, Louisville, Kentucky, in 1912, was suffocated in his apartment by a fire on January 12, aged 56.

GEORGE W. HAAN, Aurora, who graduated at Illinois Medical College in 1900, died February 9, aged 83. He was health commissioner of Aurora from 1919 to 1937.

WALTER B. HUEY, retired, Joliet, who graduated at Rush Medical College in 1903, died January 25, aged 69. He had practiced in Joliet since 1912 and retired in 1944.

William James Larkin, Chicago, who graduated at Rush Medical College in 1922, died in Galesburg, Illinois, Nov. 24, 1947, aged 65, of coronary sclerosis.

Philip Max Le Beau, Chicago, who graduated at College of Physicians and Surgeons of Chicago, School of Medicine of the University of Illinois in 1910, died Nov. 9, 1947, aged 62, of coronary heart disease.

Albert H. Montgomery, Chicago, who graduated at Rush Medical College in 1907, died suddenly in his home, January 31, aged 65. He served as head of the surgical staff of the Children's Memorial Hospital and also on the staffs of the Presbyterian and Cook County Hospitals.

William Major, Peoria, who graduated at University of Illinois College of Medicine in 1901, died Dec. 24, 1947, aged 74. Was a former president of the Peoria County Medical Society.

Willis O. Nance, retired, Chicago, who graduated at Bellevue Hospital Medical College, New York, in 1893, died in St. Vincent's Hospital, Los Angeles, California, January 16, aged 76. He was a member of the "Fifty Year Club" of the Illinois State Medical Society.

Maten Floyd Rathbun, Hanover, formerly of Chicago, who graduated at Chicago Medical School in 1921, died January 25, aged 53.

Lawrence W. Rowell, Western Springs, who graduated at Rush Medical College in 1900, died January 12, aged 77.

Alonzo Higbee Waterman, Chicago, who graduated at the Hahnemann Medical College and Hospital, Chicago, 1906, died Nov. 26, 1947, aged 67, of coronary thrombosis. He had been certified by the American Board of Internal Medicine, and served on the staff of Henrotin and Illinois Masonic Hospitals.

Louis Gilbert Wehrle, Chicago, who graduated at the Bennett College of Eclectic Medicine and Surgery, Chicago, in 1913, died following injuries received in a fall when he slipped on the pavement, January 13, aged 65.

Arthur Henry Weis, Chicago, who graduated at Friedrich-Wilhelms-Universität Medizinische Fakultät, Berlin, Prussia, Germany, in 1901, died in Mount Sinai Hospital Nov. 10, 1947, aged 74, of virus pneumonia. He had served on the staff of the Columbus Memorial Hospital and was health editor of the Abendpost.

STREPTOMYCIN AND SULFADIAZINE USED TOGETHER IN BRUCELLOSIS

Patient Ill For Months Recovers Promptly When Two Combined In Treatment; Neither Effective Alone

How combined treatment with streptomycin and sulfadiazine brought about complete recovery in an unusually stubborn case of human brucellosis is reported in the December 20 issue of *The Journal of the American Medical Association* by C. Wesley Eisele, M.D., and Norman B. McCullough, M.D., from the Department of Medicine, School of Medicine, University of Chicago.

The case suggests that an effective treatment for this baffling disease, which in the United States is exceeded in importance by only three other communicable diseases—tuberculosis, syphilis and gonorrhea—may at last have been found.

Brucellosis is transmitted to humans by contact with diseased hogs, goats or cows, or by drinking the milk of infected animals. In its acute form the symptoms may easily be confused with those of typhoid fever, acute tuberculosis, malaria, acute rheumatic fever, influenza and other diseases; in its chronic form, which is much more common, the disease is even harder to diagnose. Relapse and recurrence of symptoms even after apparent recovery are common. In the early days of the sulfonamide compounds and of streptomycin, enthusiasm for their efficacy in treatment ran high, but neither drug by itself proved particularly effective against the bacteria of brucellosis except in the test tube.

In the case cited by the writers, an acutely ill patient was hospitalized five months after he had begun to have daily attacks of chills, fever and dizziness. A diagnosis of undulant fever was made, and he was given penicillin and blood transfusions. He improved enough to leave the hospital after 10 weeks, but shortly afterward he was admitted to another hospital with a high fever and other symptoms. In spite of prolonged streptomycin treatment his blood tests remained positive for the bacteria of brucellosis, and after three months there was no improvement.

Finally a 28-day course of sulfadiazine treatment was started. The patient still showed no improvement until streptomycin was combined with the sulfadiazine during the last 10 days. After termination of this combined treatment blood tests for the bacteria of brucellosis were negative for the first time, and the patient's fever dropped and remained around normal. He recovered completely, and after 17 months had had no relapse.

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(Continued on page 42)

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**Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154; Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60; Proc. Soc. Exp. Biol. and Med., 1934, 32, 241; N. Y. State Journ. Med., Vol. 35, 6-1-35, No. 11, 590-592.*

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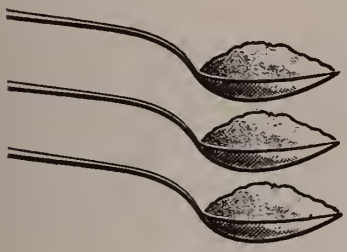
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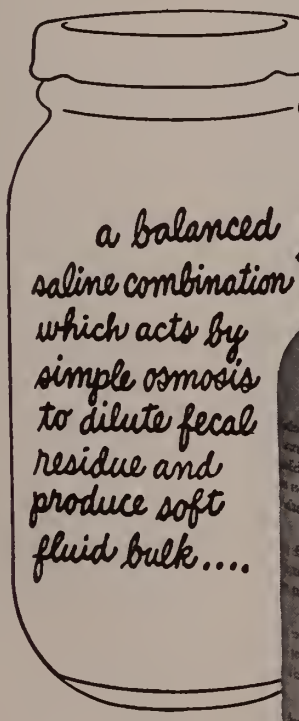


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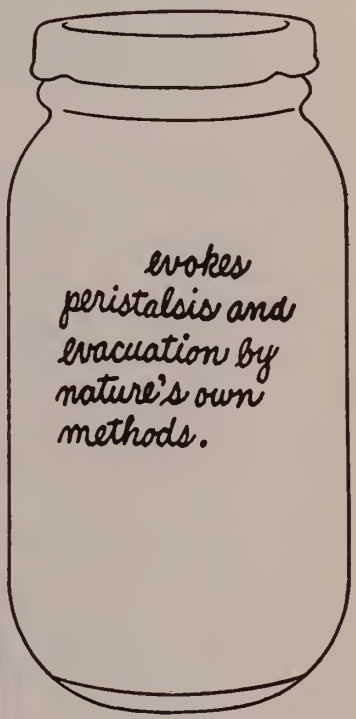
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Physical Medicine Abstracts

John S. Coulter, M.D.

COMMON SHOULDER INJURIES

Harrison L. McLaughlin, M.D.
New York, New York

In THE AMERICAN JOURNAL OF SURGERY,
LXXIV:4:282:284-5
October, 1947

Common shoulder injuries are simple problems when treated by a program founded upon a knowledge of the normal functional anatomy of the part. However, the therapeutic programs must be tempered by a clinical philosophy which includes comprehension and acceptance of certain proven truths pertaining to the shoulder mechanism:

1. The only useful functions served by complete immobilization or partial restriction of function of the injured adult shoulder include: (1) local rest of recently damaged tissues, (2) protection against additional damage and (3) maintenance of bone to bone apposition when aiming for scapulohumeral arthrodesis in the position of maximum function.

2. The inevitable harmful function served by immobilization or restriction of function is the production of a rapidly progressive muscular imbalance, atrophy, stiffness of the joints and prolonged pain and disability.

3. Improper treatment often imposes a more severe penalty upon the patient than would a complete absence of treatment.

4. Considerable derangement of any single motor skeletal component of the shoulder is possible without significant interference with total function.

5. The most important single factor predisposing to unsatisfactory results in common injuries of the shoulder is the utilization of therapy based upon the anatomical or x-ray characteristics of the injury to the exclusion of all other factors. The presence or absence of normal anatomy, while desirable, is not especially important to the proper functioning of the shoulder mechanism.

Aspirin, codeine, gentle local heat, sedative massage and other soothing measures available are useful to control pain and spasm, especially during the first week following injury. It should be explained to the patient that any restricting dressing applied is for support, protection and comfort and not designed to immobilize the arm; and that the resultant restriction of motion is a necessary disadvantage of the early stages of therapy which must be compensated for by added effort on his part as soon as diminishing symptoms permit gradual progressive resumption of motion.

Active, gravity-free motion is possible and should be started within a few days or as soon as pain permits.

Pain is the accurate measure of safety in evaluating the degree of activity to be permitted at any stage.

Within two weeks symptoms usually subside sufficiently to make pendulum exercises free and fairly comfortable. Gradual progressive resumption of aided active elevation against gravity then should be instituted. This may be done by teaching the patient how to crawl up the wall, and to throw a rope over a door, a shower rod or a pulley and carry out gibbett exercises. Coincident with subsidence of pain and the progressive recovery of function every effort should be directed toward resumption of normal use of the extremity within pain limits. Normal use which calls for synchronized action of the shoulder muscles is

(*Continued on page* 48)

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2. Infection-fighting drugs. Peritonitis, once feared as a frequent complication of abdominal surgery, today is uncommon. The use of such agents as the sulfa drugs and penicillin—to treat infection or to guard against it—has almost eliminated many of the infections which formerly constituted the greatest dangers in surgical procedures.

3. Early ambulation. Doctors have found that getting patients out of bed soon after operations not only speeds recovery, but also prevents many of the discomforts formerly suffered. Bowel and urinary functions are quickly restored. Gas pains are usually avoided. It is not unusual nowadays for a patient to be well enough to go home from the hospital in less than ten days after a major operation.

4. Body Nutrition. One of the problems in surgery has been that the condition which makes an operation necessary is usually one which has depleted the patient's nutritional reserves, and therefore lessens his ability to recover promptly from the operation itself.

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SEE YOUR DOCTOR. Give him your complete confidence at all times. If he advises an operation, follow his recommendation promptly. With modern surgery, with modern hospital care, you have little reason to be afraid.

Remember, too, that when surgery is indicated, a delay may be dangerous. Prompt action is likely to give you a quicker recovery—and an easier one!

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PHYSICAL MEDICINE (Continued)

much more efficient than any prescribed exercise and should always be started at the earliest possible moment and gradually but progressively increased in scope. As soon as the symptoms permit the sling and swathe should be discarded for progressively increasing periods and then left off altogether except when needed for protection against external forces and when he is asleep. The absence of pain and the recovery of function indicates the time when full normal activities are permissible. The x-rays should be ignored in making this decision.

ULTRAVIOLET BLOOD IRRADIATION TREATMENT OF PELVIC CELLULITIS

Knott Method

R. C. Olney, M.D., Lincoln, Nebraska

In THE AMERICAN JOURNAL OF SURGERY, LXXIV:4:440:442
October, 1947

Pelvic cellulitis, chronic pelvic infection of pelvic inflammatory disease constitutes the most common and persistent complaint for which women consult their doctors. These cases range from the mild inflammatory condition with dysmenorrhea to the serious surgical diseases of massive inflammatory processes involving all of the pelvic structures. The great majority of these cases are non-gonorrheal in origin and are of a mixed infection, and a high percentage of these cases have never had gonorrhea. To a great extent the infection in the pelvis in these cases is hematogenous in origin.

Ultraviolet blood irradiation by the Knott technic as approved by the American Blood Irradiation Society is the most important treatment we have at the present time to stimulate the host in the process of building up resistance.

By increasing blood oxygens up to 300 per cent and by increasing the phagocytic action of the white blood cells 50 to 100 per cent, we are doing something to stimulate the individual resistance to help destroy the invading organisms. Recently much has been done to develop drugs which will destroy or inhibit the invading organisms, but very little has been done to stimulate the individual's resistance against the infection.

Ultraviolet blood irradiation treatments are usually given at intervals of two to four weeks, and patients require two, four or six treatments,

(*Continued on page* 50)

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PHYSICAL MEDICINE (Continued)

sometimes more. In severe cases treatments may be given more frequently as indicated, and in chronic cases treatments may be given at intervals one, two or three months apart for a period of time.

Conclusion

During twenty-five years of practice I have never found any treatment of chronic pelvic cellulitis that compares with ultraviolet blood irradiation by the Knott technic as approved by the American Blood Irradiation Society. The relief to patients is very marked and the return to normal of the pelvic structures is very interesting. The general improvement of the patient is also remarkable. By this method of treatment it is possible not only to relieve a large percentage of patients with acute and chronic pelvic cellulitis, but it is also possible to avoid surgical removal of structures unless there is a definite cyst, tumor or organic disease other than inflammatory.

DIAGNOSIS AND MANAGEMENT OF PERIPHERAL NERVE INJURY

E. S. Gurdjian, M.D. & J. E. Webster, M.D.
Detroit, Michigan

In THE AMERICAN JOURNAL OF SURGERY,
LXXIV:3:359:367
September, 1947

Dysfunction of a peripheral nerve may occur from contusion and laceration in wounds, in association with fracture and dislocation of long bones and in some instances by chronic irritation. By far the most common type of interruption is that due to involvement in lacerations, bullet and other penetrating wounds. This paper will deal primarily with the diagnosis and management of nerve injury in lacerations. A few comments will also be made concerning involvement in dislocation and fracture of long bones and from chronic irritation.

Rehabilitation

Splints of affected parts are, in general, of little help in rehabilitation. The advantage of preventing overstretch of muscles is offset by the disadvantages of immobilization, resulting in inactivity of the affected muscles. The patient looks upon the splint as a form of treatment and overlooks the insidious fixation of the joints and muscle atrophy; however, patients with dropped

(*Continued on page* 52)



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*Barr, Joseph S., *Ruptured Intervertebral Disc and Sciatic Pain*, Jr. Bone and Joint Surg., 29: 429-437 (April) 1947.

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PHYSICAL MEDICINE (Continued)

wrist, shoulder or foot should have the parts neutralized, especially during sleep.

The plan of rehabilitation for the patient with peripheral nerve injury must begin immediately after trauma. As early as possible the patient must be instructed and repeatedly advised regarding the importance of continuous physiotherapeutic exercise of the affected part. Instead of maintaining a passive role, an active, interested and cooperative viewpoint must be indoctrinated in the patient.

Any surgical procedure is but a single step in the treatment. A successful result also depends on continuing exercise performed through a period of months. The patient cannot simply be told to exercise his extremity. He should be taught the gross fundamentals of the anatomy and physiology of the involved part and the role of occupational physiotherapy. This can best be done by a therapeutist who with adequate facilities can teach and encourage progress. The facilities are simple devices which stimulate the patient to exercise and illustrate muscle movements which he in turn can imitate. It is of importance that the patient participates in the experiences and progress of those also employing the physiotherapy and occupational facilities. He can be impressed by seeing the retarded patient who neglected his hand or he can be stimulated by the progress of the cooperative patient.

BELL'S PALSY

Karsten Kettel, M.D., Hillerod, Denmark

In ARCHIVES OF OTOLARYNGOLOGY,
46:4:427:54
October, 1947

By Bell's palsy is understood an apparently idiopathic (genuine) peripheral disease of the

(*Continued on page* 54)

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PHYSICAL MEDICINE (Continued)

facial nerve which unfortunately has been called "rheumatic facial paresis" or paresis nervus facialis 'e frigore'."

Little is known about the disease from the standpoint of etiology; so much seems to be clear, however, that "Bell's palsy," which is far from designating an entity, has become a collective diagnosis for all cases of peripheral facial paresis in which it has been impossible to demonstrate a local causation.

The lack of knowledge has also left its mark on the discussion of the genesis of the disease, which practically has been confined to theoretic deliberations.

In 1932, however, Ballance and Duel began to operate on patients suffering from Bell's palsy, decompressing the facial nerve by opening the fallopian canal from the stylomastoid foramen to the lateral semicircular canal, their view being that the disease is due to edema of the facial nerve, which is compressed by the inelastic bony canal.

Morris stated that 6 to 8 weeks was the utmost limit for expectant treatment of Bell's palsy which shows no signs of beginning mobility or only slight signs, but he added that if the faradic reaction becomes negative or the reaction of degeneration becomes positive before this period has passed, the decompression must be carried out as soon as possible. Ticke (1939) wrote: "In my experience the 85 per cent that recover had never lost there response to faradic stimulation, ... the 15 per cent who lose their response to faradic stimulation and show no improvement in from 6 to 8 weeks should have a decompression of the facial nerve."

THE SCHERING AWARD FOR 1948 ANNOUNCED

The interesting and vitally important subject of "The Role of Hormones in the Maintenance of Pregnancy" is the basis for The Schering Award for 1948. For the three best manuscripts submitted by undergraduate students of American and Canadian medical schools on such a designated phase of endocrinology, the award annually offers cash prizes of $500, $300 and $200, and is sponsored by the Schering Corporation of Bloomfield, New Jersey.

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Book Reviews

Procedure in Examination of the lungs, with especial reference to the diagnosis of tuberculosis. Arthur F. Kraetzer, M.D., Associate Attending Physician, Lenox Hill Hospital; Physician to Outpatients, New York Hospital; Instructor in Medicine (Derm.), Cornell University. Third Edition, revised and with a preface by Jacob Segal, M.D., F.A.C.P., F.C.C.P., Medical Director, Los Angeles Sanitorium; Formerly Associate Attending Physician, Triboro Hospital. Oxford University Press, New York. 1947. 150 pages.

This standard textbook is now in its third edition. The original text by Doctor Kraetzer has been left unchanged, the newer knowledge having been added by Doctor Segal as an appendix. The additions maintain the high standard of the earlier editions.

Dr. Kraetzer's book has never pretended to be a complete manual of physical diagnosis of the chest, but remains incomparable in its offering of a practical method for developing the technic of examination of the lungs. The real contribution is in simplifying the methods involved, partly by the clear and attractive manner of presentation.

It is no doubt true that our skill in physical examination of the chest has deteriorated since the development of laboratory aids such as the x-ray, but as Dr. Kraetzer says, the physical examination is far from outmoded. This book is recommended for all students of physical diagnosis.

J.C.S.

Gynecology Including Female Urology. Lawrence R. Wharton, Ph.B., M.D. Assistant Professor of Gynecology, The John Hopkins Medical School; Assistant Attending Gynecologist, The John Hopkins Hospital; Consultant in Gynecology, The Union Memorial Hospital, Hospital for the Women of Maryland, Sinai Hospital and Church Home and Infirmary. W. B. Saunders Company, Philadelphia, 1947. 1000 pages, 479 Illustrations. Price $10.00.

This book has been published in its second edition, which has been brought up to date by reorganization, rewriting, and additions. Besides presenting the principles and practice of gynecology, considerable attention has been devoted to female urology in the relationships of the entire female genito-urinary system. The student and practitioner have been kept in mind. Each chapter is preceded by an outline of its contents. The chapter material proceeds logically from anatomy on through congenital malformations and clinical features of diseases generally, and of specific diseases. Surgical technics are described and illustrated, and post-operative care described. Sections on Embryology and Congenital Malformations have been almost entirely re-written. A chapter on Water Cystoscopy has been added. The female urethra is discussed in a separate chapter. Other important changes have been made according to improved knowledge of physiology and chemotherapeutic problems. Both sides of controversial questions are presented. The book is well illustrated, microscopically, grossly, and diagrammatically.

J.W.F.

Gifford's Textbook of Ophthalmology. By Francis H. Adler, M.D., Professor of Ophthalmology, University of Pennsylvania Medical School. Fourth Edition. Illustrated. Published, 1947. Octavo, 512 pages. Philadelphia: Lea & Febiger. Cloth. Price $6.00.

The late Doctor Sanford R. Gifford's original purpose in presenting his fine "Textbook of Ophthalmology" was to provide a text of value to the medical student and to the physician not specializing in Ophthalmology. Doctor Francis Adler has thoroughly revised and brought up to date this excellent book.

The material may be beyond the immediate needs of the medical student, but it should be most useful in Ophthalmology in the medical school and most helpful later in the years of medical practice.

Ocular diseases due to diseases of the central nervous system and ocular manifestations of general diseases have been developed into full chapters.

Diagrams, illustrations and colored pictures implement the reading matter, which was chosen to acquaint the general practitioner and the medical student with those eye diseases which he may safely treat himself and the indications of those which he may wish to

refer for more expert advice. References are given to articles in current literature in English, as a guide to further reading.

The book accomplishes the mission intended by its original and its current authors, and is recommended for the medical library.

L.P.A.S.

THE SELECTED WRITINGS OF BENJAMIN RUSH: Edited by Dagobert D. Runes, Philosophical Library, New York. Price $5.00.

Benjamin Rush has long been known as one of the outstanding pioneer physicians of Colonial Days — as a military surgeon during the Revolutionary War— as a member of the Revolutionary Congress, and as a signer of the Declaration of Independence.

Many of us are not familiar with the teachings of Doctor Rush in the fields of social and political freedom. His articles on the horrors of slavery and his constant insistence upon its abolition, are well brought out in his "Selected Writings". He had a keen sense of his responsibilities as a physician and realized his limitations well. He did envision to some extent, the future of medicine, and expressed his belief that in his own country the cures for many of the ailments then so prevalent might eventually be discovered.

He was always a firm believer in the right of the people to rule themselves through the proper use of the ballot. Many reading this interesting book will be surprised to note his interest in good government as shown by several articles in this section. Likewise his demand for liberal education of all the people in a republican state was interesting. He was also an early advocate of the Bible as a school book and his frequent references to the Bible show that he was a student at all times.

The section on "Natural and Medical Sciences" and his efforts to solve many of the mysteries of disease, are of much interest and illustrate the difficulty of the pioneer physician in those days when the cause of disease was unknown. His article on "Duties of a Physician" is most interesting and should be read by all members of the medical profession. Doctor Rush was more than a physician; he was an outstanding citizen of his time. This is well brought out by the wide variety of subjects upon which he wrote.

There is excellent advice for the present day editor in his "Directions for Conducting a Newspaper", written in 1788. His story of the epidemics of yellow fever is most interesting and shows the helplessness of the profession at that time to check its ravages. This is an intensely interesting book and worth the time of any physician to read in spare moments.

A PRIMER OF CARDIOLOGY. George E. Burch, M.D., F.A.C.P., Associate Professor of Medicine; Senior Visiting Physician, Charity Hospital; Consultant in Cardiovascular Diseases, Ochsner Clinic; Visiting Physician, Touro Infirmary, New Orleans. Paul Reaser, M.D., Instructor in Medicine, Tulane University School of Medicine; Assistant Visiting Physician, Charity Hospital, New Orleans. Published



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1. Kasper, J. A. and Jeffrey, I. A.: A Simplified Benedict Test for Glycosuria, Amer. J. Clin. Pathology, *14*:117-21 (Nov.) 1944.

2. Haid, W. H.: The Use of Screening Tests in the Clinical Laboratory, J. Amer. Med. Tech., *8*:606-14 (Sept.) 1947.

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Wm. L. Brown, Jr., M.D., Associate

BOOK REVIEWS (Continued)

by Lea & Febiger, Philadelphia, 1947. 272 Pages. 203 Illustrations. Price $4.50.

This book of 272 pages is an introduction to the fundamentals of cardiology. It presents a systematic approach to the evaluation of cardiac disease, much of which is in outline and synopsis form without losing the significance of purpose. The book is profusely illustrated, diagrammatically, to bring out the dynamics of normal and abnormal function. Many illustrations are repeated in order that the reader will not have to refer to other sections. American Heart Association nomenclature and classification has been used. The major forms of heart diseases are covered with shorter references to less common forms. Brief references to treatment are made.

J.W.F.

Books Received

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

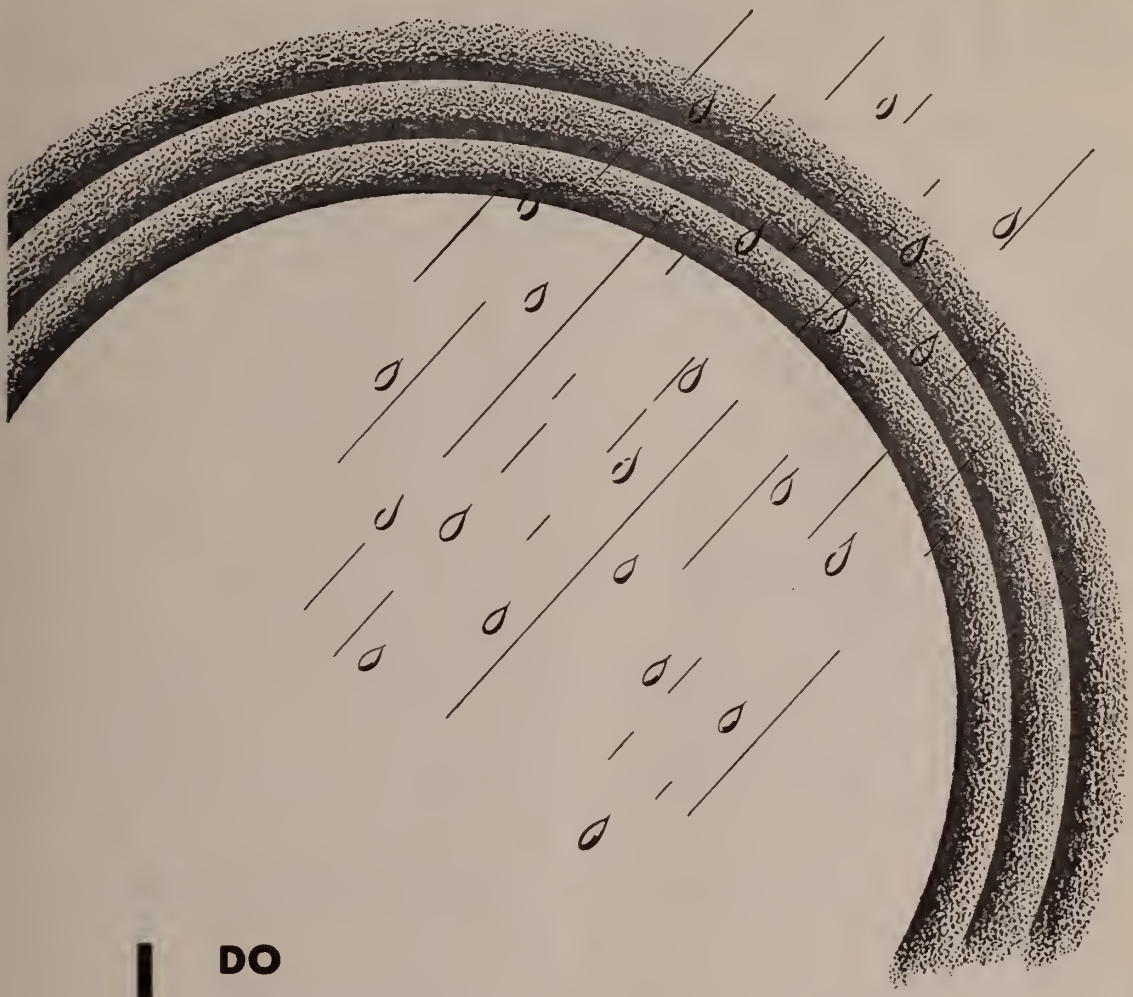
MANUAL OF CLINICAL THERAPEUTICS: A guide for Students and Practitioners: By Windsor C. Cutting, M.D., Professor of Therapeutics, Stanford University School of Medicine, San Francisco, California. Second Edition. 712 pages, with 30 illustrations. Philadelphia and London: W. B. Saunders Company, 1948. Price $5.00.

DERMATOLOGY FOR NURSES: By G. H. Percival, M.D., Ph.D., F.R.C.P.E., D.P.H., Grant Professor of Dermatology, University of Edinburgh; Physician to the Department of Dermatology, Royal Infirmary, Edinburgh; Consultant Dermatologist to Edinburgh Municipal Hospitals and Elizabeth Toddie, S. R.N., Sister in Charge, Department of Dermatology, Royal Infirmary, Edinburgh: The Williams and Wilkins Company, Baltimore, 1947. Price $4.50.

THE TREATMENT OF RHEUMATISM IN GENERAL PRACTICE: By W. S. C. Copeman, O.B.E., M.A., M.D. (Cantab), F.R.C.P. (London), Physician in charge, Dept. of Chronic Rheumatic Diseases, West London Hospital; Physician, B.R.C.S., Clinic for Rheumatism, Peto Place; Hospital of St. John and Elizabeth and Cheyne Hospital for Children; Chairman of the Chartered Socy. of Physiotherapy and Med. Sec. Empire Rheumatism Council: Fourth Edition: The Williams & Wilkins Company, Baltimore.

ADVANCES IN MILITARY MEDICINE: Science in World War II, Office of Scientific Research and Development: Made by American investigators working under the sponsorship of the Committee on Medical Research, Edited by E. C. Andrus, C. S. Keefer, D. W. Bronk, J. S. Lockwood, G. A. Carden Jr., J. T. Wearn, M. C. Winternitz: Associate Editor —

(*Continued on page 62*)



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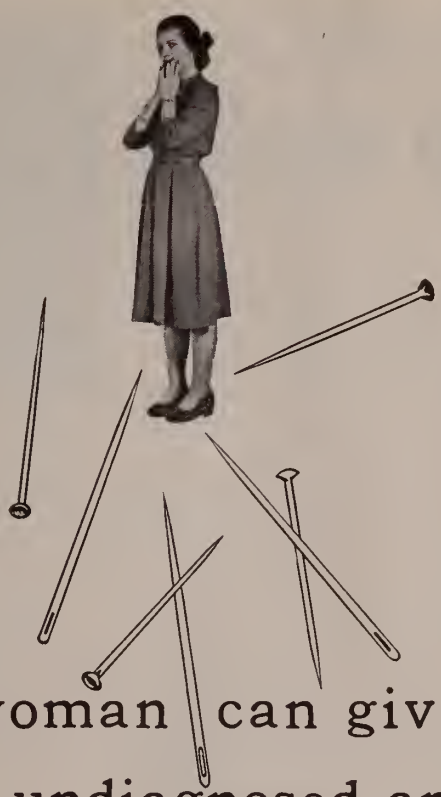
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Tuckerman Day: Foreword by Alfred N. Richards: With illustrations: An Atlantic Monthly Press Book, Little Brown and Company, Boston. 2 Volumes. Price $12.50.

TUBERCULOSIS: A discussion of phthisiogenesis, immunology, pathologic physiology, diagnosis, and treatment, by Francis Marion Pottenger, A.M., M.D., L.L.D., F.A.C.P., Emeritus Professor of Medicine, University of Southern California, the School of Medicine; Medical Director, the Pottenger Sanatorium and Clinic for Diseases of the Chest, Monrovia, California: Illustrated. The C. V. Mosby Company, St. Louis. 598 pages. Price $12.00.

OCCUPATIONAL MEDICINE AND INDUSTRIAL HYGIENE: By Rutherford T. Johnstone, A.B., M.D., Consultant in Industrial Health, Lecturer at the University of California, Los Angeles. Formerly Assistant Professor of Medicine, University of Pittsburgh School of Medicine; Formerly Director of Department of Occupational Diseases, Golden State Hospital. One Hundred Seventeen Illustrations, seven in color. The C. V. Mosby Company, St. Louis. 604 pages. Price $10.00.

MINOR SURGERY (Sixth Edition) By Frederick Christopher, B.S., M.D., F.A.C.S., Associate Professor of Surgery at Northwestern University Medical School, Chief Surgeon, Evanston (Illinois) Hospital. Sixth edition. 1058 pages, 937 illustrations on 595 figures. Philadelphia & London: W. B. Saunders Company, 1948. Price $12.00.

A MANUAL OF PHARMACOLOGY (Seventh Edition) — And Its Application to Therapeutics and Toxicology: By Torald Sollmann, M.D., Professor Emeritus of Pharmacology and Materia Medica in the School of Medicine of Western Reserve University, Cleveland. Seventh Edition. 1132 pages. Philadelphia and London: W. B. Saunders Company, 1948. Price $11.50.

SEXUAL BEHAVIOR IN THE HUMAN MALE: By Alfred C. Kinsey, Professor of Zoology, Indiana University; Wardell B. Pomeroy, Research Associate, Indiana University; and Clyde E. Martin, Research Associate, Indiana University. 804 pages — 173 charts — 159 tables. Philadelphia and London: W. B. Saunders Company, 1948. Price $6.50.

BABY CARE FROM BIRTH TO BIRTHDAY: By E. G. Lawler, M.D., Chicago. Publication date, February 2, 1948. Wilcox & Follett Company, 1255 South Wabash Avenue, Chicago 5, Illinois. Price $5.00.

The steadily increasing industrial employment of women in this country has not as yet been reflected in a higher tuberculosis mortality in women, even at the ages of highest susceptibility. Henry D. Chadwick, M.D., and Alton S. Pope, M.D., The Modern Attack on Tuberculosis, The Commonwealth Fund, Revised, 1946.

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DR. FLOREY EXPECTS TO SEE NEW ANTIBIOTICS USED IN MEDICINE

Many Antibacterial Substances Other Than Penicillin and Streptomycin Already Meet Some Requirements For Use

In all probability new antibiotics which will find a place in medicine will be discovered during the next few years, writes Howard Florey, M.D., Oxford, England, in the December 20 issue of *The Journal of the American Medical Association.*

In 1945 Dr. Florey was awarded the Nobel Prize for his work on penicillin, the antibiotic which thus far has proved of greatest clinical value. In the search for other antibiotics which can be put to use in medicine, however, Dr. Florey points out that surveys have been made of enormous numbers of organisms. A great number of antibacterial substances other than penicillin and streptomycin have been isolated and tried in the clinic, and some have already met many of the requirements which he lists as desirable for any antibiotic that is to be used as a systemic therapeutic agent.

These requirements are:

1. It must have a powerful action against some bacteria.

2. It must be more active against some bacteria than against others.

3. It must possess little toxicity to the intact animal body, the individual cells or the kidneys, even when given in frequent doses for a considerable length of time.

4. It must be active in the presence of body fluids as well as in the test tube.

5. It must not be destroyed by tissue enzymes.

6. It should be stable. (Penicillin is not.)

7. It should not be too rapidly excreted by the kidneys. (Penicillin leaves the body very quickly.)

8. It should not be capable of producing in infecting bacteria resistance to the chemotherapeutic drug itself. (Bacteria eventually become resistant to streptomycin and, to a lesser degree, to penicillin.)

"Over and above this direct search for antibiotics useful in medicine, bonuses are accruing which may be of the greatest use in the future," Dr. Florey concludes. "It is fair to say that the employment of modern chemotherapeutic agents

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ANTIBIOTICS (Continued)

necessitates a good knowledge of bacteriology by the practitioner of medicine, and I think that modern therapeutics has brought nearer together the sciences of bacteriology and of practical medicine. And in addition every study of the action of an antibiotic throws some light on the life process of bacteria."

PRESBYTERIAN HOSPITAL APPOINTS NEW CHAIRMAN FOR DEPARTMENT OF MEDICINE

Appointment of Dr. S. Howard Armstrong, Jr. of Boston as fulltime chairman of the department of medicine at Presbyterian hospital has just been announced by Philip R. Clarke, vice-president of the hospital's board of managers. Dr. Armstrong will devote the greater part of his time to the planning and direction of the hospital's enlarged program of medical research and education for which extensive laboratory facilities are being set up in the buildings formerly occupied by Rush Medical college, Mr. Clarke said.

The new laboratory of medicine to be equipped early in 1948 under Dr. Armstrong's direction will work in close conjunction with the departments of pathology and biochemistry which have been greatly expanded during the past year under Dr. Douglas MacFadyen, biochemist, and Dr. George M. Hass, pathologist. In addition to directing the program of basic laboratory research, Dr. Armstrong and his associates will coordinate the hospital's medical teaching program and assist in furthering the research interests of medical staff members, many of whom now are widely known for their contributions to medical progress.

Following graduation from Harvard Medical school and a residency in medicine at Presbyterian hospital, New York City, Dr. Armstrong devoted the last seven years to graduate study under a Welch Fellowship of internal medicine. Nation wide in scope, these fellowships are set up under the direction of the National Re-

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search Council to prepare men to direct medical teaching and research departments by providing for extensive training with equal emphasis on basic sciences and clinical research.

Dr. Armstrong's graduate work as a Welch fellow was divided between the departments of physical chemistry of Harvard university and Massachusetts Institute of Technology and in the wards of Peter Bent Brigham hospital in Boston. He was one of the team which developed plasma fractionation, the process which separates blood products, now utilized extensively in medicine and surgery. More recently Dr. Armstrong has been making special studies of submicroscopic body constituents under the guidance of Dr. George Scatchard, physical chemist at Massachusetts Institute of Technology.

The ultimate outcome in a minimal case can be favorably or unfavorably influenced by the type of follow-up observation and post-sanatorium living conditions. One must guard against relaxation of close medical supervision, an unregulated daily work tolerance, excessive social activities and economic and environmental deficiencies. I. D. Bobrowitz, M.D., Allan Hurst, M.D. and Margaret Martin, Am. Rev. Tbc., Aug., 1947.

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The plans of well-meaning persons to seek federal support for medical and dental education are a threat to the independence of privately endowed institutions, and a direct step toward socialized medicine, according to Kenneth F. Burgess, president of the board of trustees of Northwestern University. He addressed more than 800 Northwestern dental alumni at their annual luncheon on February 11 in Chicago.

He referred specifically to a recent proposal involving nearly $40,000,000 in federal funds to be administered by the surgeon-general and allocated as grants-in-aid to medical and dental schools and schools of nursing. Under the plan, further funds would be provided to defray 50 per cent of new building programs, and still more for scholarships.

In addition, there would be 600 national scholarships in medicine covering tuition and $90 per month subsistence. Persons holding the latter scholarships would be obligated, under the plan, to serve upon graduation for a specified period in the United State Public Health Service, the army, navy and air forces, or the Veterans Administration. If not needed there, they would be obliged to serve in state areas certified by officials to be suffering from a shortage of doctors.

"This seems to be state medicine and socialized dentistry beyond anything which has been visualized in the United States up to this time," Mr. Burgess declared.

Referring to such subsidy proposals as "dangerous clouds on the horizon that menace the continued independence of endowed schools such as Northwestern," Mr. Burgess asserted that the threat of nationalization and ultimate surrender of control to a federal agency are always implicit in such programs. Warning that schemes such as the program referred to might find favor with some schools faced with desperate financial problems, he added that if endowed colleges like Northwestern are compelled to take funds under federal legislation, it is bound to result, he told the dentists, "in such nationalization of your profession as completely to change your standards, your aspirations, and your whole way of life."





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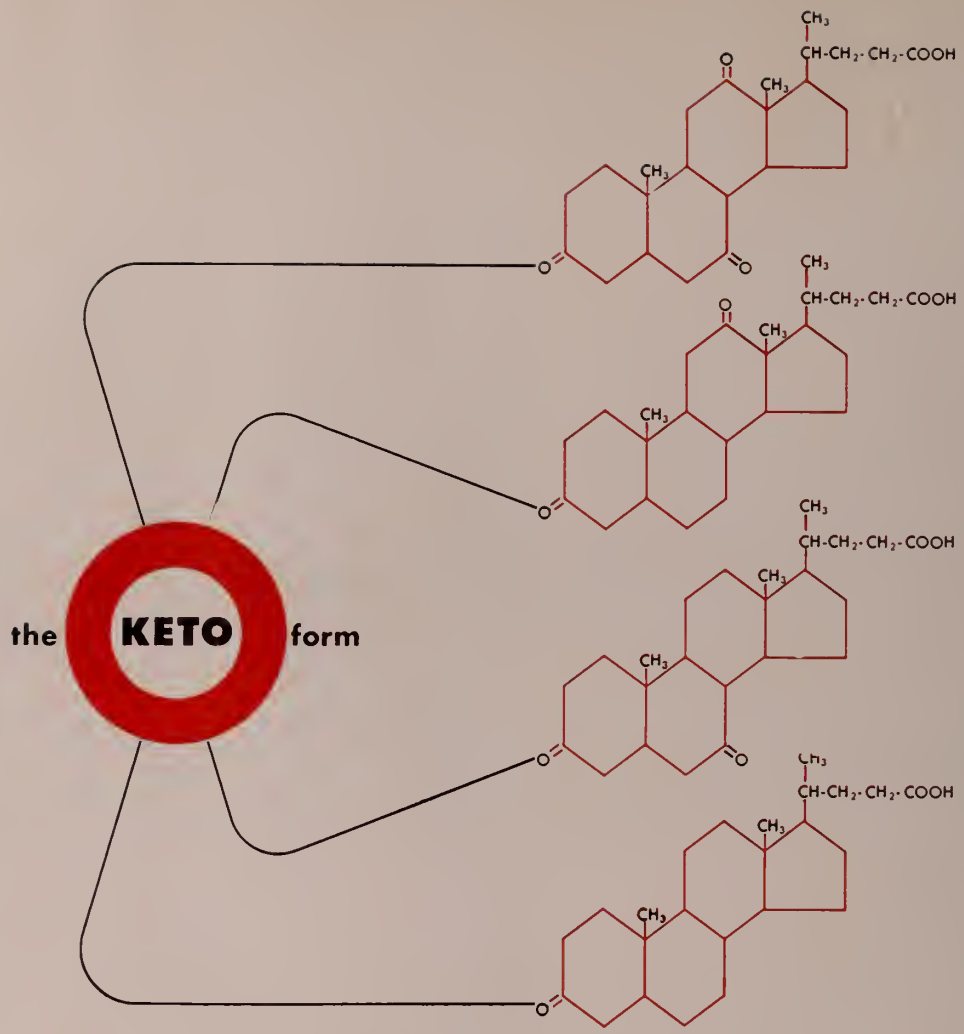
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The Surgical Treatment of Psychoses

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Not only does Dexedrine produce striking improvement in mood and outlook—but, because of the unique "smoothness" of its action, it spares the patient the disturbing consciousness of "drug stimulation."
Smith, Kline & French Laboratories, Philadelphia

Dexedrine*

Sulfate elixir tablets

the central nervous stimulant of choice (*dextro-amphetamine sulfate, S. K. F.*)

*T. M. REG. U. S. PAT. OFF.

"One man's meat . . ."



Food allergy is a common but not easily diagnosed cause of digestive tract distress. If the offending food cannot be avoided, symptomatic relief of the spastic manifestations of proven or suspected gastrointestinal allergy — pylorospasm, spastic constipation, spastic colitis, etc.—may be obtained through the use of Mesopin.

Mesopin is a specialized antispasmodic whose action is predominantly directed toward the gastrointestinal tract. Its selective action permits more direct management of hyperactivity and spasticity without causing the undesirable and uncontrollable effects of atropine, belladonna, or related antispasmodics.

Mesopin is available on prescription in bottles of 100 tablets, each tablet containing 2.5 mg. (1/24 gr.) homatropine methyl bromide.

Mesopin ***selective*** ***gastrointestinal antispasmodic***

brand of homatropine methyl bromide



Endo Products Inc. Richmond Hill 18, New York



1. *Individual aluminum-foil envelope is cut open along the dotted line on the lengthwise lamination with sterile scissors.*



2. *With sterile forceps, one end of Vaseline* Sterile Petrolatum Gauze Dressing is pulled out, while envelope is held with other hand. The emerging end of dressing is applied to wound (at the same time that pleated portion is withdrawn).*





3. *Application can be made with a motion similar to that used with a roller bandage. Dressing may be cut into strips or pads of preferred dimension, or folded into thickness desired, or used full length.*



4. *Close-up of filling operation by hooded and sterile-gowned operator, with automatic measuring machine, under ultraviolet lamps and glass shield.*

always ready! always sterile!

—for Local Application as Dressing, Covering or Packing

Wherever a bland, non-adherent, non-irritant dressing may be required for burns or wounds—VASELINE* Petrolatum Gauze Dressings in *Individual Sterile Packages* are ever ready for instant use anywhere, any time! Each Baybank Dressing is a 3″ x 36″ strip of sterile, fine-meshed absorbent cotton gauze, uniformly saturated with sterile petrolatum, accordion-folded and heat-sealed in a moisture-proof, aluminum foil envelope. Baybank Dressings are handy for physicians' bags, first-aid kits, ambulances, emergency wards, operating rooms, etc., and may be used at the site of an accident in factory, home or street—as well as in the hospital or doctor's office. They can be used for a variety of indications by general practitioner, surgeon, industrial physician, et al.

BAYBANK PHARMACEUTICALS, INC.
Division of Chesebrough Mfg. Co. Cons'd
17 STATE STREET, NEW YORK 4, N. Y

*Trade-Mark Reg. U. S. Pat. Off.

BAYBANK

Baybank Pharmaceuticals, Inc.—a subsidiary of the world-famous Chesebrough Mfg. Co. Cons'd—has been established to bring to the medical profession a series of distinctively new ethical medicaments, progressively formulated, authoritatively tested, and of lasting merit.

Petrolatum Gauze Dressings in individual Sterile envelopes

sustained local contact

Directly at the site of troublesome vaginal infections



Bristol Penicillin Vaginal Suppositories

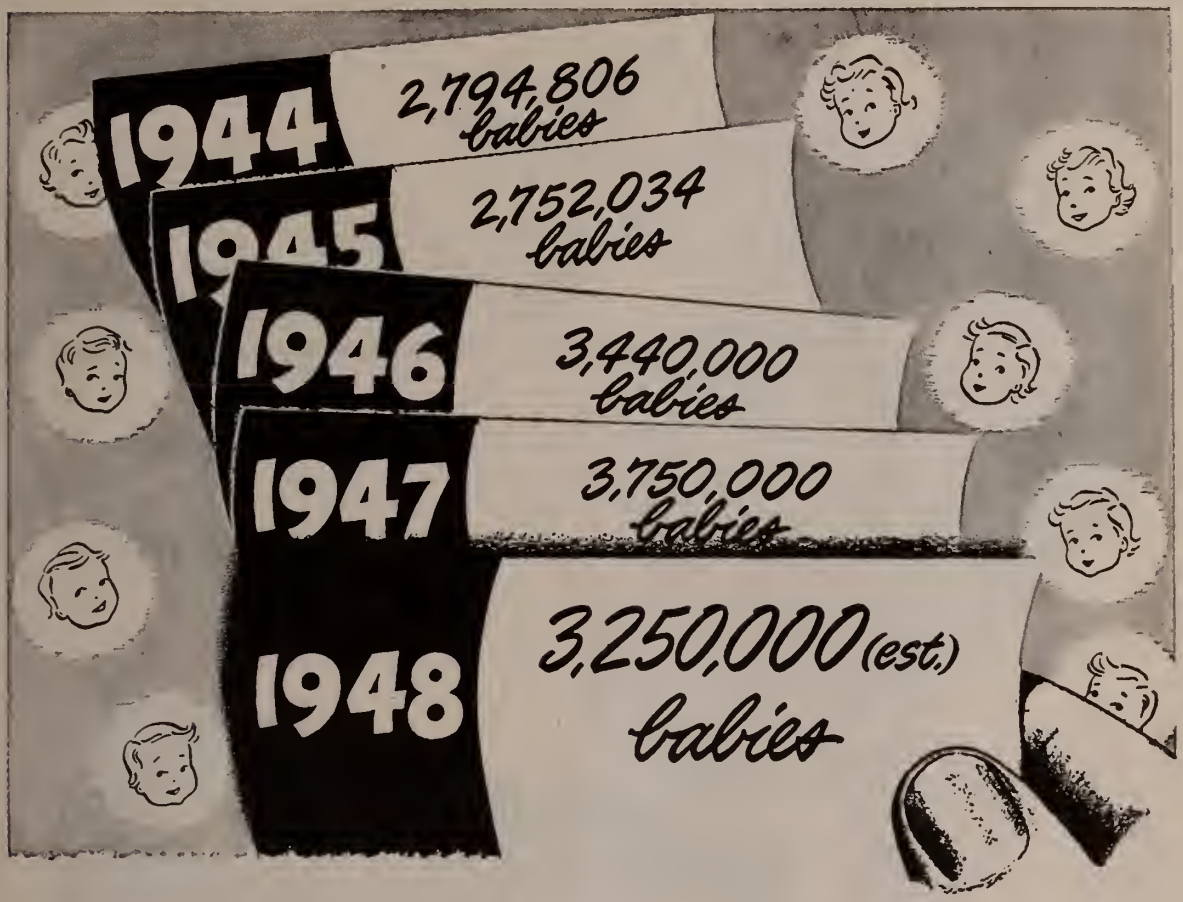
In acute vaginitis, and related conditions of the lower female genital tract, caused by, or associated with, penicillin-sensitive organisms, exclusive of the gonococcus; as an adjunct in treatment of vaginal trichomoniasis;

For prophylaxis, pre- and postoperatively in surgery of the uterus and adnexa, or as routine in prepartum preparation.

Bristol Penicillin Vaginal Suppositories contain 100,000 units of calcium penicillin each. They are available for your prescription in boxes of six suppositories.

Bristol
LABORATORIES INC.
SYRACUSE, NEW YORK

NATIONAL PHARMACY WEEK • APRIL 18—APRIL 24



Borden's prescription specialties are flexibly adaptable to cope effectively with the sharply increased number of your infant feeding problems.

BIOLAC—a complete infant formula (only vitamin C supplementation needed) for infants deprived of mother's milk.

DRYCO—a powdered, high-protein, low-fat, moderate carbohydrate milk food ideally suited for all formulas.

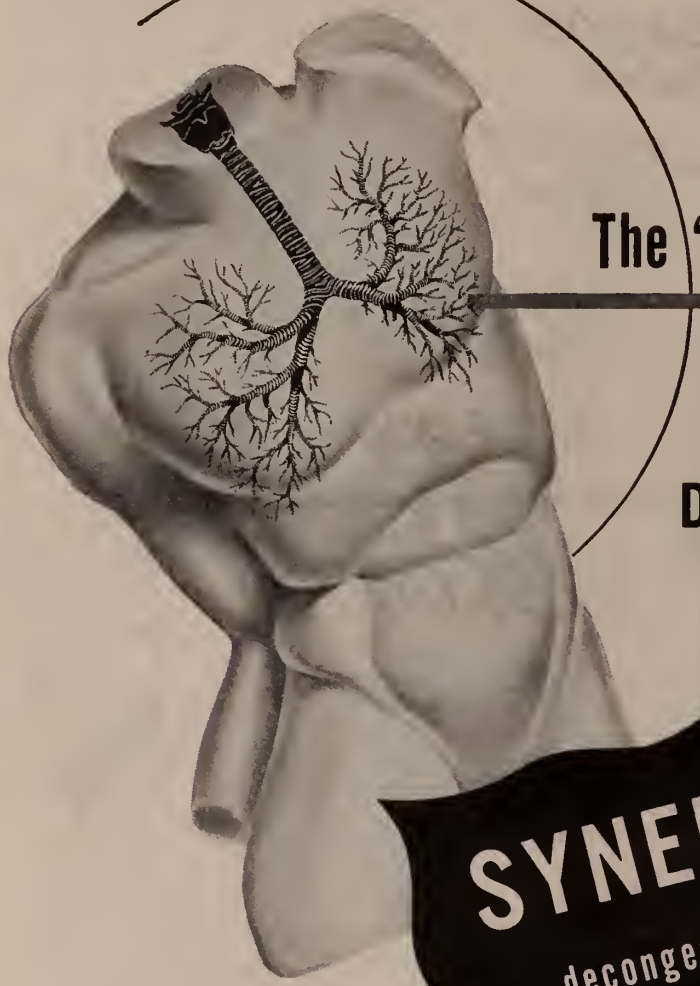
BETA-LACTOSE—an exceptionally palatable, highly soluble milk sugar for formula modification.

MULL-SOY—a hypo-allergenic emulsified soy food for infants and adults allergic to milk proteins. The 1:1 standard dilution approximates cow's milk in fat, protein, carbohydrate and mineral content.

KLIM—a spray-dried whole milk with soft curd properties essential in infant feeding and special diets. Particularly valuable when availability or safety of fresh milk is uncertain.

Borden prescription products are available at all drug stores. Complete professional information may be obtained on request.

BORDEN'S PRESCRIPTION PRODUCTS DIVISION • 350 MADISON AVENUE, NEW YORK 17, N. Y.



The "deep down" cough...

RELIEF + DECONGESTION

SYNEPHRICOL®

decongestive cough syrup



In the tight, uncomfortable bronchial cough accompanying colds, influenza or bronchitis, Synephricol provides the decongestion necessary to permit free breathing. and elimination of excess mucus.

Synephricol is expectorant, and more—it thins the viscous mucoid bronchial secretions and it decreases bronchial irritation by sympathomimetic action.

EACH TEASPOONFUL OF PLEASANT FLAVORED SYNEPHRICOL CONTAINS:

Codeine phosphate	8.7 mg.
Neo-Synephrine® hydrochloride	5.0 mg.
Potassium guaiacol sulfonate	70.0 mg.
Ammonium chloride	70.0 mg.
Menthol	1.0 mg.
Chloroform	0.0166 cc.
Alcohol	8%

Exempt narcotic

Average adult dose: 1 or 2 teaspoonfuls every four hours.
Supplied in bottles of 1 pint and 1 gallon.

Winthrop-Stearns INC.
NEW YORK 13, N. Y. WINDSOR, ONT.

SYNEPHRICOL and NEO-SYNEPHRINE, trademarks reg. U. S. & Canada

Nutritive Capsules

provide prenatal and postnatal protection

They contain mineral-vitamin factors often poorly represented in patients' diets. Increased requirements during pregnancy and lactation are well recognized:

"CALCIUM which is essential for the proper development of bone, clotting of blood, and normal neuromuscular action. . . ."[1]

Each ***Nutritive Capsule*** supplies 725 mg. of anhydrous Dicalcium Phosphate, providing calcium and phosphorus in approximately the same physiologic ratio (1.3 to 1) as in blood and in milk.

"PHOSPHORUS which is associated with calcium in the formation of bone but only when present in fixed proportions. . . ."[1]

VITAMIN D "During pregnancy and lactation VITAMIN D is required both for the mother and the child."[2]

Each ***Nutritive Capsule*** supplies 400 units of vitamin D.

RIBOFLAVIN ". . . the daily requirement of RIBOFLAVIN . . . is increased in pregnancy, lactation and fever."[2]

Each ***Nutritive Capsule*** supplies 2 mg. of riboflavin



"IRON which forms the iron-protein combination of hemoglobin and prevents anemia. . . ."[1]

Each ***Nutritive Capsule*** supplies 30 mg. of Ferrous Sulfate.

". . . VITAMIN B_1 requirements are increased in the pregnant and nursing woman."[2]

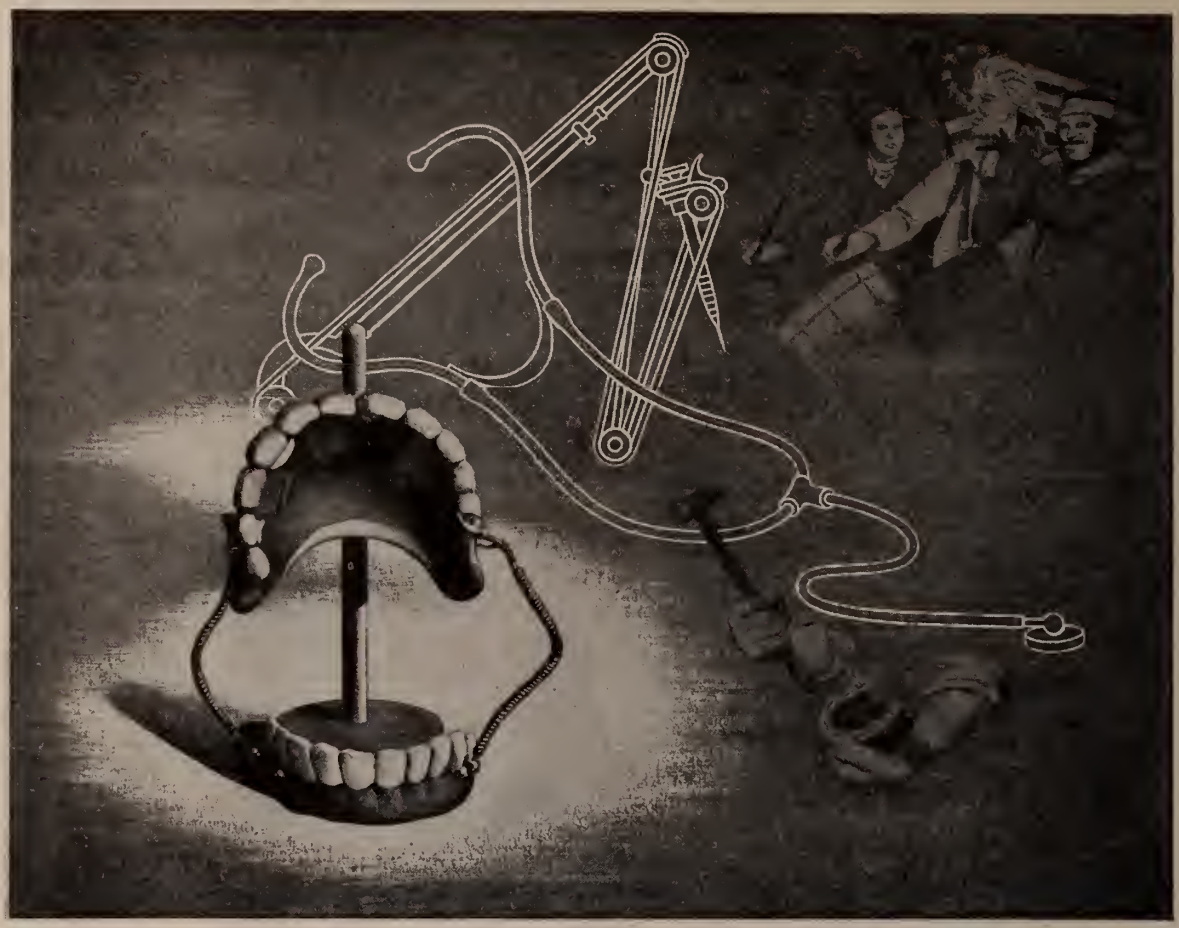
Each ***Nutritive Capsule*** supplies 2 mg. of vitamin B_1.

Dosage: One capsule three times daily, or more if indicated.
Packaging: Bottles of 100 and 1000.

BIBLIOGRAPHY (1) De Lee, J. B. and Greenhill, J. P.: Principles and Practice of Obstetrics, Saunders, Philadelphia, 1947, p. 95. (2) Bicknell, F and Prescott, F.: The Vitamins in Medicine, Grune and Stratton, New York, 1947, p. 663, p. 189, p. 326.

PARKE, DAVIS & COMPANY · DETROIT 32, MICHIGAN

MEDICAMENTA VERA · PD & CO.



The First Specialized Dentistry

Dentistry was only a "sideline" for goldsmiths, blacksmiths and strolling barbers until the French and American Revolutionary era. France demanded schooling for dentists in 1697; and Pierre Fauchard (1690-1761) soon reported systemic infection caused by teeth, used pivot teeth and crowns and made dentures complete with artificial gums.

Two favorite figures of the American Revolution symbolize the "before" and "after" of the *dental* revolution. Paul Revere was rendering dental services in addition to his smithing and engraving in 1773, while George Washington's dentures (illustrated above) were carved from a hippopotamus tusk by a full-time dental *specialist!*

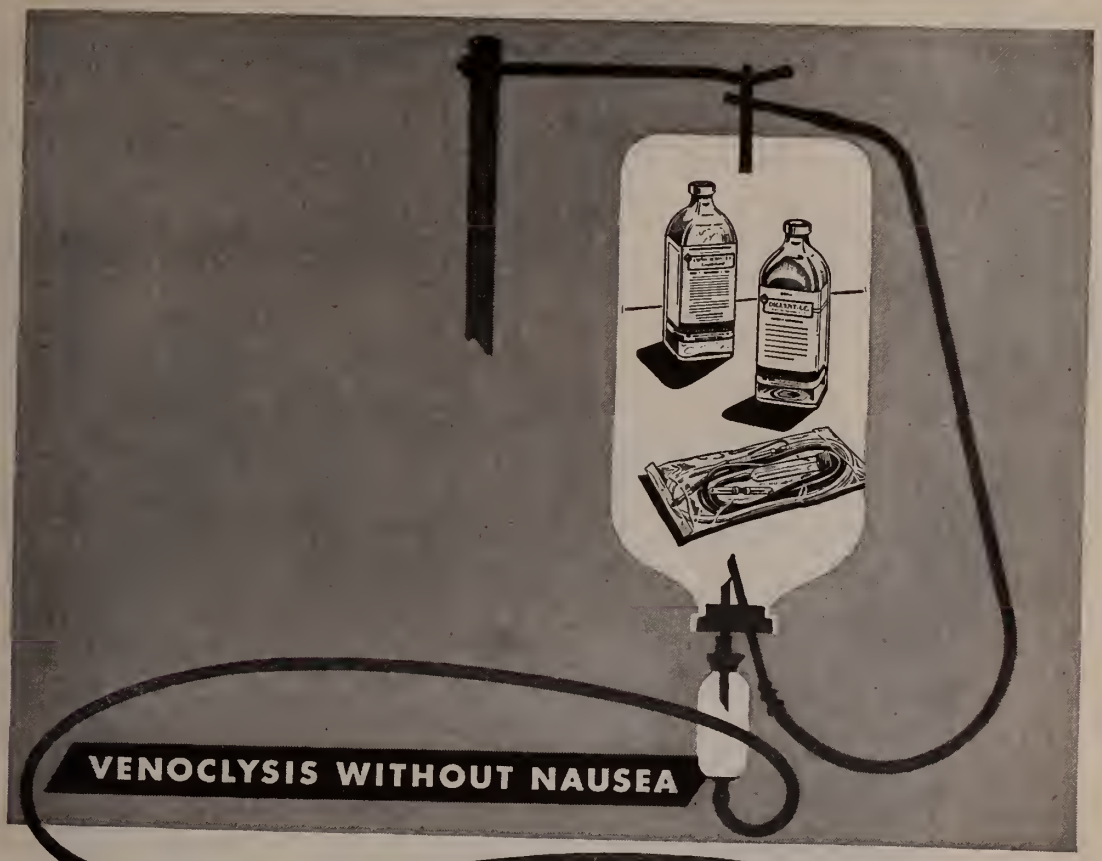
But doctors still had no specialized *protection*. In 1794, in the first American malpractice case to be appealed, the defendant had no trained malpractice attorney to defend him and no malpractice insurance to pay his judgment.

Doctors Today need not depend, for their protection, upon companies offering malpractice insurance as just another "sideline." *Specialized* malpractice protection—*complete, preventive and confidential*—has been assured by the Medical Protective policy since 1899.

THE
MEDICAL PROTECTIVE COMPANY
FORT WAYNE, INDIANA

Professional Protection EXCLUSIVELY . . . *since 1899*

CHICAGO: T. J. Hoehn, E. M. Breier and W. R. Clauston, Representatives, 1142-44 Marshall Field Annex Bldg., Tel. State 0990—SPRINGFIELD: F. A. Seeman, Representative, 307 Illinois National Bank Bldg., Tel. 7915



VENOCLYSIS WITHOUT NAUSEA

Rapid intravenous infusion of protein hydrolysates has been accompanied from time to time by such reactions as nausea and vomiting. Madden and his co-workers* found a definite relationship between these reactions and the level of glutamic acid in the administered preparation. More recently, Smyth and his co-workers** verified this finding in a study of 115 hospital patients.

It is noteworthy that in the preparation of AMINO ACIDS-I. C. *Lyophilized*, a 50% reduction of the glutamic acid content has been achieved. Therefore this *adjusted amino acid complex* is unlikely to provoke nausea and vomiting when given at physiologically optimal rates. Descriptive literature will gladly be sent.

*Madden, S. C., et al: Tolerance to Amino Acid Mixtures and Casein Digests Given Intravenously; Glutamic Acid Responsible for the Reactions, J. Exper. Med. 81:439 (May) 1945.

**Smyth, C. J. Lasichak, A. G. and Levey, S.: The Effect of the Rate of Administration of Amino Acid Preparations and Blood Amino Acid Nitrogen Level on the Production of Nausea and Vomiting, J. Lab. and Clin. Med. 32:889 (July) 1947.

FEATURES

- *rich in essential amino acids*
- *assayed microbiologically*
- *salt-free (0.005%)*
- *lyophilized for stability*
- *pH 6.5-7.0*
- *well tolerated in 10% solution*

AMINO ACIDS-I. C.

LYOPHILIZED

Interchemical Corporation

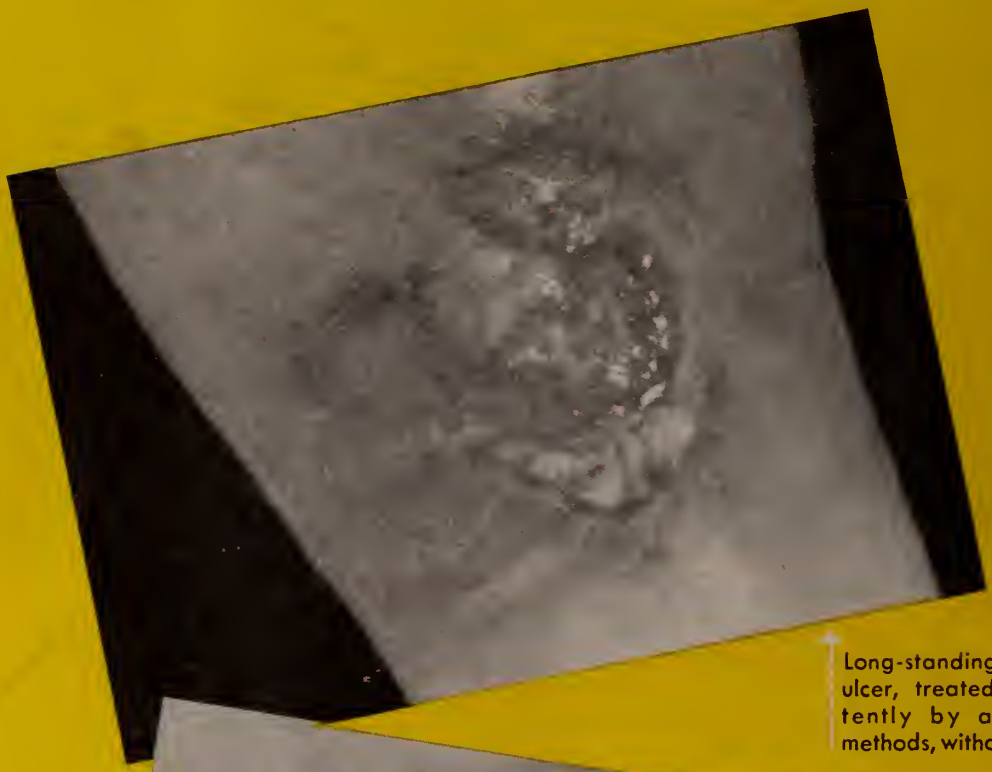
BIOCHEMICAL DIVISION • UNION, NEW JERSEY

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THE OHIO CHEMICAL & MFG. CO.

Stimulates healthy granulation

. . . rapid epithelization



Long-standing diabetic ulcer, treated intermittently by approved methods, without success.



Same lesion, almost entirely healed, after 10 weeks' treatment with Vitamin A and D Ointment.

White's

in slow-healing wounds
crushing and
avulsive injuries
burns · ulcers
fissured nipples



Topical application of the *natural* vitamins A and D —as provided in White's Vitamin A and D Ointment—"results in a remarkable regeneration of all sorts of tissue defects . . . wounds fill more quickly with granulations . . . epithelize more satisfactorily and heal more rapidly than with other methods . . . reduces infection—destroys no epithelial elements—minimizes skin grafting."[1] In local care of the puerperal nipple: ". . . gave protective and therapeutic results much better . . . than other methods."[2]

White's Vitamin A and D Ointment provides the *natural* vitamins A and D derived from fish liver oils and in the same ratio as found in cod liver oil—in an appropriate lanolin-petrolatum base; pleasantly fragrant—free from excessive oiliness. In 1.5 oz. tubes; 8 oz. and 16 oz. jars; 5 lb. containers.

1. Hardin, P. C.: So. Surg. *10*:301 (May) 1941.
2. Brougher, J. C.: West. J. Surg., Obst. and Gyn. *52*:520, 1944.

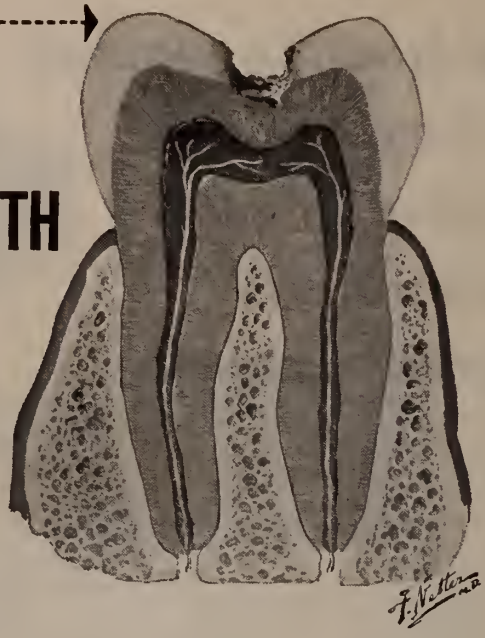
Vitamin **A & D** **Ointment**

for faster healing

WHITE LABORATORIES, INC., Pharmaceutical Manufacturers, Newark 7, N. J.

NOURISH THE TEETH

to prevent caries



An Inadequate Supply of minerals, particularly calcium and phosphorous, has been recognized for some years as an underlying factor in faulty skeletal growth and in improper tooth development and enamelization. More recently the importance of a minimal but adequate intake of fluoride has been emphasized as a factor in decreasing the incidence of dental caries.

Not only during growth but during pregnancy also there is an increased need for minerals since decalcification, which is frequently accompanied by dental caries, is common.

Fluorossteol Armour is a logical means of overcoming mineral deficits because Fluorossteol Armour, which is prepared from femurs of government inspected cattle, contains about 95 per cent calcium and phosphorus with smaller percentages of magnesium, sodium, potassium, strontium, barium, silicon, aluminum, iron and traces of chromium, copper and manganese. More important, Fluorossteol Armour contains small amounts of fluorine in the form normally found in bone and teeth. Thus an adequate intake of minerals, in the normally occurring ratios and including fluorine, can be accomplished.

Fluorossteol Armour is available in two forms:

1. 5 grain tablets (bottles of 100, 500 and 1000).
2. 5 grain telescopic gelatin capsules (bottles of 100, 500, and 1000). The powder may be readily removed from these capsules for incorporation in formulae or semi-solid food.

The dose for children up to 3 years of age: 10 grains daily in food or liquids; children 4 to 8: 15 grains daily given as above. For older children and pregnant women, the tablets may be prescribed to be chewed and swallowed (3 to 6 daily).

Have confidence in the preparation you prescribe — specify ARMOUR

THE Armour LABORATORIES

CHICAGO 9, ILLINOIS

FLUOROSSTEOL

Armour

HEADQUARTERS FOR MEDICINALS OF ANIMAL ORIGIN

Release!

from fear of conception when pregnancy is contraindicated



Physician's package and complete description of the *New Technique* will be sent upon request.

Ethically promoted—Advertised only to the medical profession.



Whenever pregnancy is contraindicated, maximal protection is assured by the new Lanteen technique. This NEW TECHNIQUE gives dual protection—the mechanical protection of the Lanteen Flat Spring Diaphragm plus the spermatocidal activity of Lanteen Jelly.

LANTEEN FLAT SPRING DIAPHRAGM

Easily fitted and long lasting. The Lanteen Flat Spring Diaphragm, collapsible in one plane only, is easily placed without an inserter. Fitting the largest comfortable size assures maximal protection.

Lanteen Diaphragms, made of the finest rubber, are guaranteed against defects for a period of one year.

LANTEEN JELLY

Lanteen Jelly, nonirritating, nontoxic, soothing and rapidly destructive to spermatozoa, combines active spermatocidal agents in a jelly which is readily miscible with the vaginal secretions.

Lanteen

Lanteen Medical Laboratories, Inc. • 900 North Franklin Street • Chicago 10, Illinois

Experience is the Best Teacher



R. J. Reynolds Tobacco Co., Winston-Salem, N. C.

EXPERIENCE IS THE BEST TEACHER IN CIGARETTES, TOO!

With the thousands and thousands of smokers who have tried and compared many different brands of cigarettes, Camels are the "choice of experience."

Try Camels yourself! Find out how much your taste appreciates the full, rich flavor of Camel's choice, properly aged, expertly blended tobaccos—how your throat welcomes Camel's cool mildness.

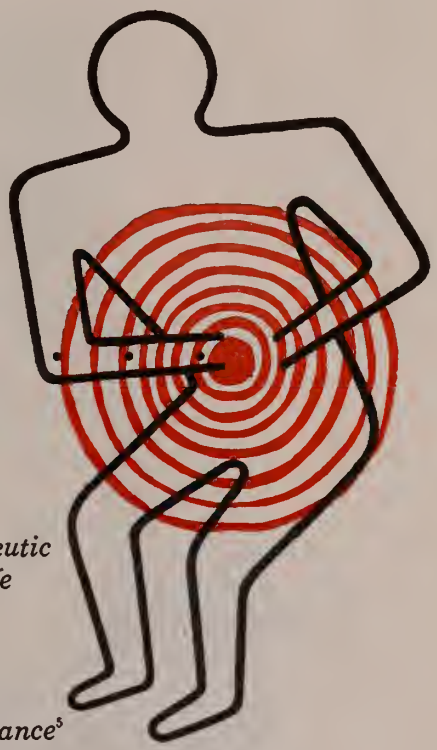
Let your own experience tell you why more people are smoking Camels than ever before.

According to a Nationwide survey:

More Doctors Smoke CAMELS
than any other cigarette

Three leading independent research organizations in a nationwide survey asked 113,597 doctors what cigarette they smoked. The brand named most was Camel!

in the management of simple diarrheas



"TOMECTIN"

"TOMECTIN" *is a combination of nickel pectinate and dried fresh tomato pulp, two therapeutic agents which have been found of value in the management of diarrheas of non-specific origin.*

The detoxifying[1,2] and bacteriostatic[3] properties of nickel pectinate as well as its antihemorrhagic effect[4] have proved of clinical assistance[5] in the treatment of various diarrheal conditions including bacillary dysentery. Morrison reports[6] that with dried tomato pulp, diarrhea from simple or non-organic cause was usually arrested within 24 hours following treatment. Nickel pectinate and dried tomato pulp have been found, in many instances, to bring about a favorable response when other antidiarrheal medication had failed.[5,6]

"Tomectin" will appeal to infants, children and adults because, dispersed in water, it forms a preparation having the refreshing tartness of tomato juice. From the standpoint of therapeutic effectiveness, simplicity of administration and palatability, "Tomectin" will prove a valuable antidiarrheal medication.

"Tomectin," No. 951, is presented in wide-mouthed bottles each containing 50 grams. Each gram contains:

Nickel pectinate	*150.0 mg.*
Sodium chloride	*50.0 mg.*
Together with all factors naturally present in dried fresh tomato pulp	*800.0 mg.*

[1] Malyoth, G.: Klin. Wchnschr. *13*:51, 1934.
[2] Bittner, J. E., Jr.: Northwest Med. *35*:445 (Dec.) 1936.
[3] Myers, P. B., and Rouse, A. H.: Am. J. Digest. Dis. *7*:39 (Jan.) 1940.
[4] Powers, J. L.: Bull. National Formulary Committee *9*:5 (Oct.) 1940.
[5] Block, L. H., Tarnowski, A., and Green, B. L.: Am. J. Digest. Dis. *6*:96 (Apr.) 1939.
[6] Morrison, L. M.: Am. J. Digest. Dis. *13*:196 (June) 1946.



"TOMECTIN"
Nickel Pectinate Compound

Ayerst

Ayerst, McKenna & Harrison Limited
22 East 40th Street, New York 16, N. Y.

4820



Celebrated Conductor....

dietary dub!

His baton commands musical perfection—his knife and fork create nutritional cacophony. Such dietary discord is no strange phenomenon. In all walks of life, among all age and economic groups you find failure, unwillingness, or inability to eat the proper foods. When vitamin B deficiency results, dietary reform may be the answer—*if* this will correct the deficiency soon enough, or *if* the patient does not lapse into old habits. As a protective measure, more and more physicians are also prescribing SUR-BEX, the Abbott vitamin tablet so rich in the essential B complex factors, plus liver concentrate and brewer's yeast. There are two good reasons for specifying SUR-BEX: *first*, the high potencies of the contained B vitamins; *second*, the palatability of the tablet, which encourages patients to adhere to the prescribed dosage schedule. Each SUR-BEX tablet is triple-coated to seal in odor, to seal out moisture and to provide the attractive taste appeal of orange bouquet and flavor. Start specifying SUR-BEX, or the new SUR-BEX WITH VITAMIN C which adds 150 mg. ascorbic acid—both available at your pharmacy in bottles of 100, 500 and 1000. ABBOTT LABORATORIES, North Chicago, Ill.

Each SUR-BEX tablet contains:

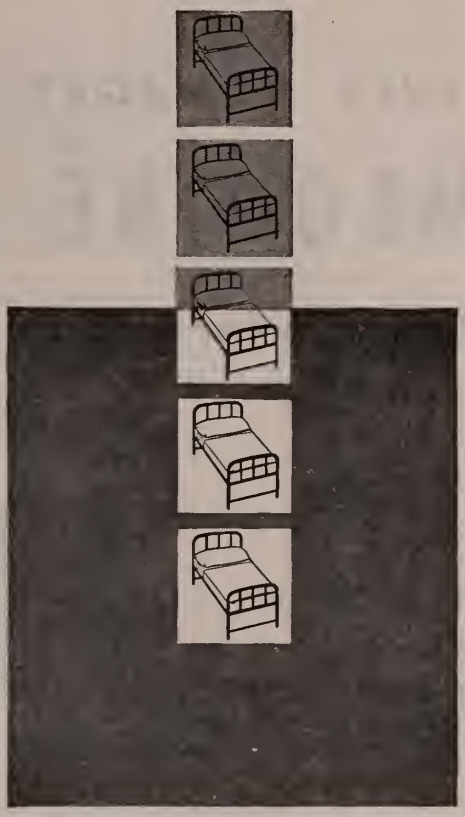
Thiomine Hydrochloride	6 mg.
Riboflavin	6 mg.
Nicotinamide	30 mg.
Pyridoxine Hydrochloride	1 mg.
Pantothenic Acid (as Calcium Pantothenate)	10 mg.
Liver Concentrate* (70% Alcohol-Insoluble Fraction)	0.3 Gm. (5 grs.)
Brewer's Yeast Dried*	0.15 Gm. (2½ grs.)

*For other B Complex Factors

SPECIFY

Sur-bex®

ABBOTT'S VITAMIN B COMPLEX TABLETS



puerperal morbidity reduced

Pelvicins*

[penicillin vaginal suppositories Schenley]

In a recent controlled study [1] of 1,573 obstetrical patients, the incidence of genital tract infections was reduced from 5.3 per cent to 2.3 per cent when penicillin vaginal suppositories were used. *A decline of 56.6 per cent!*

ADDITIONAL ADVANTAGES: PELVICINS (penicillin vaginal suppositories Schenley) shorten the hospitalization period; reduce nursing care required; are completely painless and nonirritating. These advantages suggest the value of their routine use in obstetrical procedure.

SIMPLICITY OF TECHNIQUE: Insert 2 PELVICINS (total, 200,000 units of penicillin) into posterior fornix of vagina with a sponge forceps, immediately after delivery of the placenta.

SUPPLIED: Boxes of 6 and 12 PELVICINS, 100,000 units each.

1. Pierce, R. R.: Am. J. Obst. & Gynec. vol. 55 (Feb.) 1948.

*Exclusive trademark. © Schenley Laboratories, Inc.



Schenley Laboratories, Inc.

Executive Offices: 350 FIFTH AVENUE, New York 1, N. Y.

PRICE REDUCTION: PELVICINS now cost your patients one-third less.

LIVER DAMAGE?

MEONINE®

(dl-METHIONINE WYETH)

Prevents further insult...



N O N T O X I C

Now available at all prescription pharmacies. Bottle of 100 half-gram tablets.

IN PROPHYLAXIS—Meonine is useful in the prevention of liver damage. It tends to prevent fatty infiltration, necrosis and cirrhosis due to alcoholism . . . malnutrition . . . surgery . . . pregnancy . . . infectious diseases . . . industrial poisons (such as carbon tetrachloride, TNT, or commercial plasticizing solvent) . . . and medicinal poisons (such as arsenic, barbiturates, and chloroform).

Meonine, 1-3 tablets twice daily (1-3 grams), supplies the same amount of methionine as 1-3 quarts of milk. Best results are noted when given with a high protein diet enriched with the vitamin B complex.

IN THERAPY—Meonine reverses fatty infiltration of the liver. While it does not replace fibrotic tissue or repair the cell destruction of yellow atrophy, it prevents further insult and helps promote regeneration.

Meonine has been successfully prescribed in cases characterized by low serum protein, jaundice, ascites, hepatic enlargement, or other signs of liver injury.

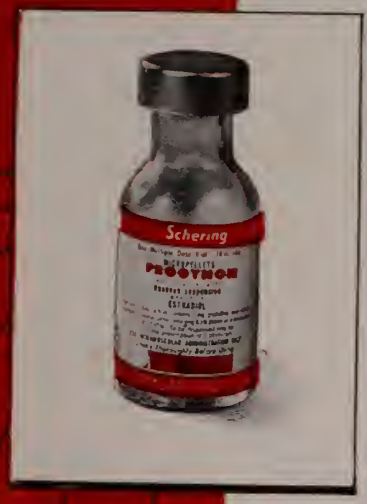
The average dose of 3-6 tablets twice daily (3-6 grams) is supplemented by a high protein, high carbohydrate diet, with the vitamin B complex and a protein digest.

WYETH INCORPORATED Wyeth® PHILADELPHIA 3, PA.

Announcing

MICROPELLETS PROGYNON

(aqueous suspension, alpha-estradiol)



a new departure in estrogen therapy

MICROPELLETS PROGYNON provide a unique and completely new technic for parenteral administration of pure alpha-estradiol. For the first time it has become possible to suspend the primary follicular hormone in the form of MICROPELLETS in normal saline. Prolonged and constant absorption from a semipermanent depot is established in the tissues by a simple intramuscular injection. Where injections of an oil solution are not feasible or desirable, a single injection of 1 mg. of MICROPELLETS PROGYNON may be substituted in order to achieve prolonged control.

MICROPELLETS PROGYNON offer economy in estrogen therapy while providing the complete safety and freedom from side effects inherent in natural hormones.

MICROPELLETS PROGYNON are available in multiple dose vials of 10 cc., each cubic centimeter containing 1 mg. of pure alpha-estradiol (12,000 R.U. or 120,000 I.U.). Boxes of 1 and 6 vials.

Schering CORPORATION • BLOOMFIELD, NEW JERSEY

IN CANADA, SCHERING CORPORATION LIMITED, MONTREAL

MICROPELLETS PROGYNON

SCHERING

In allergic disorders...

when symptomatic relief through use of an antihistaminic drug is desired, preference will be given to histamine antagonists that possess these two characteristics:

1. *Efficacy*—to relieve bothersome symptoms.

2. *Low Toxicity*—to make these benefits available to the greatest possible number of patients.

Neo-Antergan Maleate,* the *new Merck antihistaminic,* possesses these desired characteristics to a clinically significant degree.

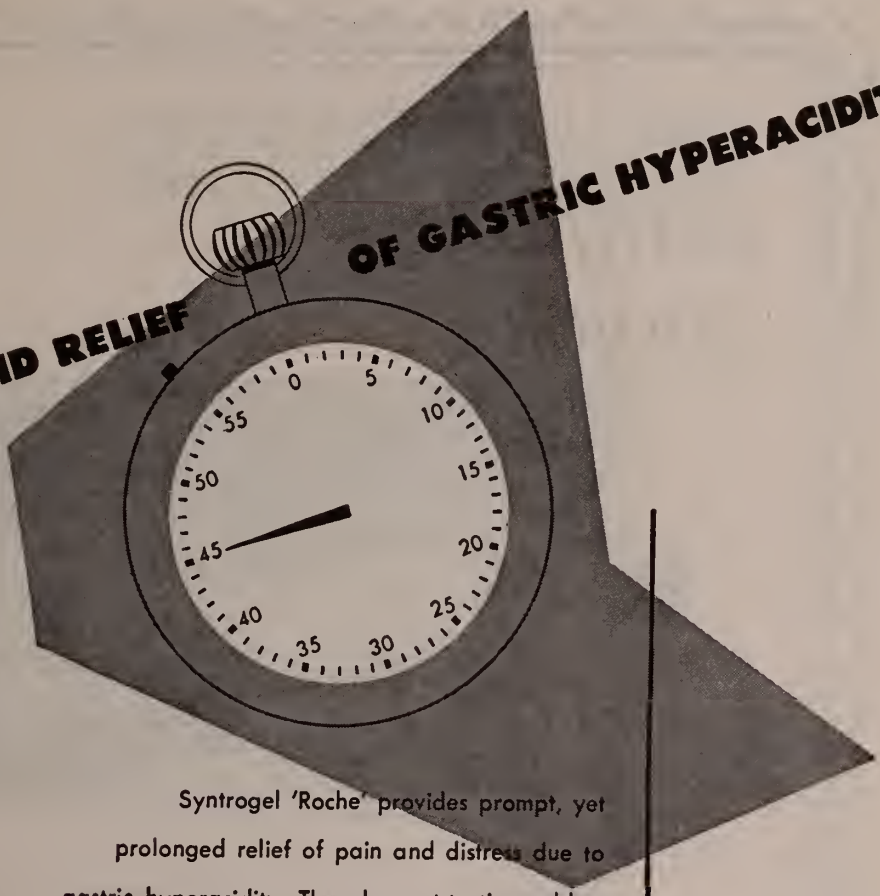
In addition to findings from extensive experimental work, there now are on hand clinical reports of more than 1,000 cases of allergy treated with Neo-Antergan. Results attest to effective symptomatic relief in many cases of Hay Fever, Pruritus, Urticaria, Vasomotor Rhinitis, Atopic Dermatitis, Allergic Drug Reactions, and certain other allergic disorders. Side reactions were absent in the large majority of patients. When they occurred, they were generally mild and transient. Discontinuance of treatment because of the severity of side effects was necessary in only about one and one-half per cent of patients.

Your local pharmacy stocks Neo-Antergan Maleate in 25 mg. and 50 mg. tablets, supplied in boxes of 100.



*Neo-Antergan is the registered trade-mark of Merck & Co., Inc. for its brand of Pyranisamine

FOR RAPID RELIEF OF GASTRIC HYPERACIDITY



Syntrogel 'Roche' provides prompt, yet prolonged relief of pain and distress due to gastric hyperacidity. The pleasant-tasting tablets speedily disintegrate in the stomach and begin to neutralize and adsorb gastric acid within a few seconds. While Syntrogel rapidly binds excess hydrochloric acid, it does not produce gastric alkalinity or acid rebound. The therapeutic efficacy of Syntrogel* is due to a balanced combination of highly active ingredients: Aluminum hydroxide (2-1/4 gr.), calcium carbonate (1-1/10 gr.), magnesium peroxide (1-1/3 gr.) and Syntropan* 'Roche' (3/40 gr.). Available in bottles of 50, 100 and 250.

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SYNTROGEL 'ROCHE'

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THE CLINICIAN'S CHOICE



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A report† covering a comprehensive study reveals that the diaphragm-jelly technique is the overwhelming choice of clinicians versed in conception control.

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1. Carroll, G., and Allen, N. H.: J. Urol. 55: 674 (1946).

2. Kirwin, T. J., and Bridges, J. P.: Am. J. Surg. 52: 477 (1941).

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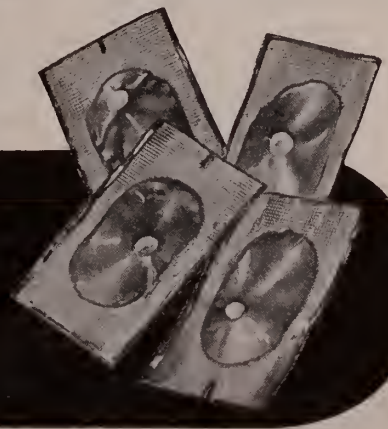
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1. Arbesman, C. E. et al. Jl. of Allergy 17:275, Sept. 1946.
2. Fuchs, A. M. et al. Jl. of Allergy 18:385, Nov. 1947.
3. Feinberg, S. M. and Friedlaender, S. Am. J. Med. Sci. 213:58, Jan. 1947.

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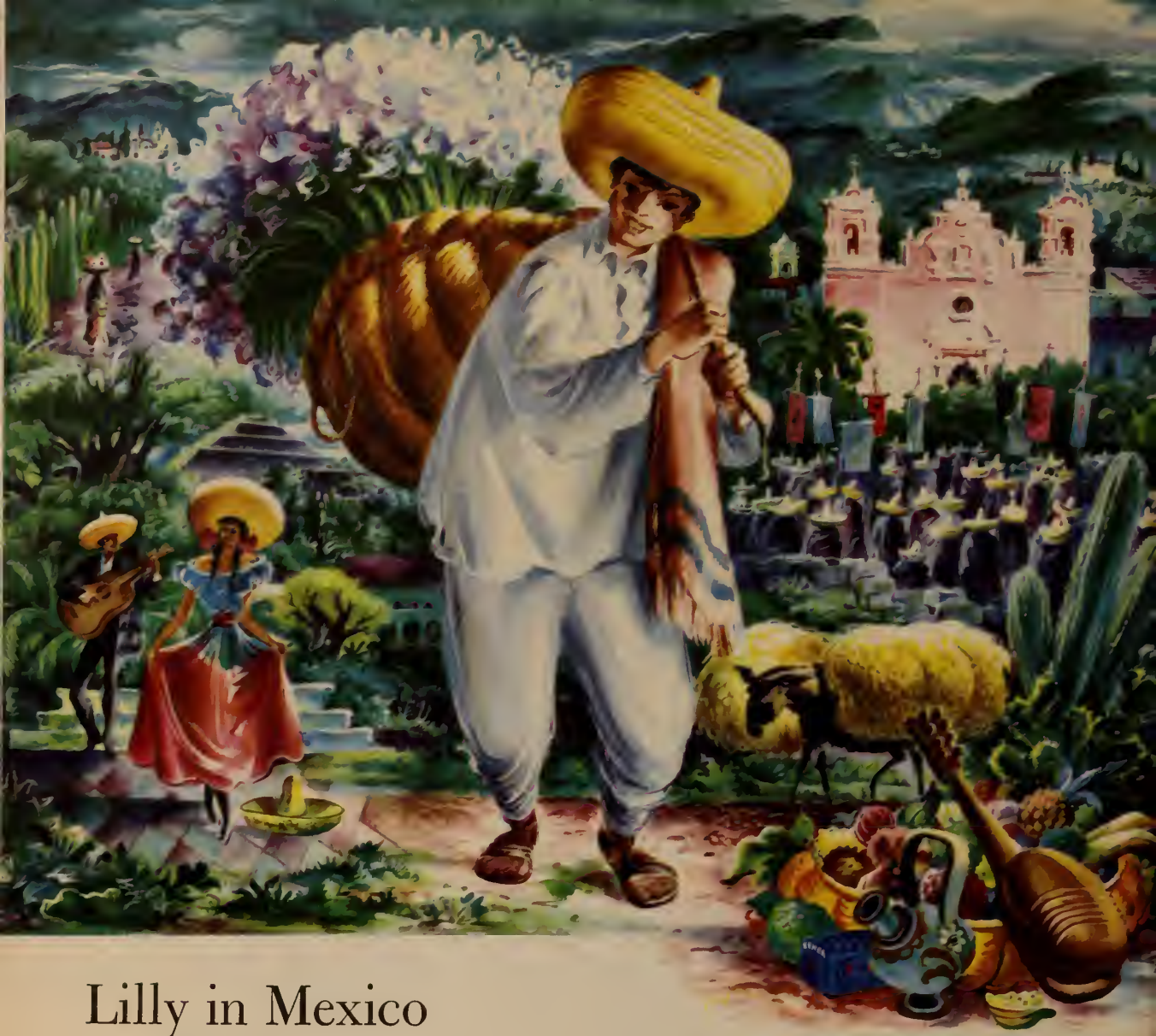
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A 15 x 12 reproduction of this Joseph Feher illustration, suitable for framing, is available upon request.

The Illinois Medical Journal

April, 1948

Vol. 93, No. 4

Official Journal of the Illinois State Medical Society

EDITOR — Harold M. Camp. EDITORIAL BOARD — James H. Hutton, Chairman, Frederick H. Falls, Josiah J. Moore, Edwin M. Miller, Chauncey C. Maher, Harry S. Gradle, Harry Culver, Walter Stevenson, Raymond W. McNealy.

Editorials

WHO SHALL "CAST THE FIRST STONE"?

The Journal of the American Medical Association February 7 carried an editorial attacking the Illinois State Medical Society, along with the Societies of New York, California and Rhode Island, because their state medical journals do not participate in the benefits of the Co-operative Medical Advertising Bureau. It was the second such attack on the Illinois society*, whose *Illinois Medical Journal* has never subscribed to the C.M.A.B.

Ordinarily such comments are properly disregarded, but the February 7 editorial was so venomous and dishonest in its presentation of the subject that it seems necessary to take the time and editorial space to analyze and comment on the editorial and its writer and to explain the operation of the *Illinois Medical Journal*.

I.

First, as to the editorial itself:

It opens with some remarks about the operation of the Council on Pharmacy and Chemistry, its functions and its opposition, much of which is not especially pertinent. However, it notes in passing the "idealistic objectives" of the work of this and other councils. That gives us the opportunity to point out that one of the basic difficulties in the situation is the "idealism" of the Council — and its concomitant lack of practicality.

Finally it gets down to the C.M.A.B., founded in 1913 to "aid the state medical journals in securing acceptable advertisements." At first it was well received, the editorial recalled, but then, "for various reasons," some state leaders began to urge withdrawals. The "various reasons", according to the editor, prove in the latter half of the editorial to be nothing less than greed, conspiracy to defraud, scientific dishonesty and treason to organized medicine.

New York with 21,750 members, California with 9,240, Illinois with 9,642 and Rhode Island with 840, have a total of 41,472 of the 136,530 members listed by the A.M.A. as of March 1. It is a little disheartening to read that nearly 30.4 per cent of the profession we think of as the greatest in the world is led by men who could be swayed by such "reasons". We can only hope that the editor forgot momentarily, in the rush of words, that they are also nearly one-third of his employers. And we will only mention in passing the possibility that he might be wrong and that the men he so venomously criticizes might honestly disagree with the Council on Pharmacy and Chemistry and consider themselves as competent as the editor to judge of the acceptability of the products their journals advertise.

The author of the editorial next singles out the *Illinois Medical Journal* for special criticism as never having functioned with the C.M.A.B., and the *New York State Journal of Medicine* for

*"Council Standards and Medical Advertising" J.A.M.A. 123:354. Oct. 9, 1943.

having adhered to it for only a brief period, and then goes on to note that the *Rhode Island Medical Journal* and *California Medicine* have "defected" from it recently. And finally he explains that the trouble is that the four journals mentioned accept advertising of products which are not accepted by the Council on Pharmacy and Chemistry.

It is well down the second column that the editor resorts to half-truths and exaggerations. Quoting: ... "the decisions of the councils which differentiate *scientific* from *unscientific* products, but which thereafter preferred to have the profits to be derived from the publication of advertisements of *unaccepted products.*" In other words, he asserts that "unaccepted" products are in all cases "unscientific" products, a theme which he develops throughout the remainder of the editorial.

We submit that the two terms do not mean the same thing. There are many drugs which are thoroughly scientific, as every doctor knows, but which the Council does not accept. At the same time, the Council does not claim to accept all scientific products. It may be that only the idealistic rules, arbitrary and uncompromising as they are, prevent acceptance, but that only emphasizes their blind lack of practicality. We insist that all unaccepted products are not, by that fact, rendered unscientific.

A little further along the editorial writer insinuates that a considerable part of the medical profession is helping to "extend the blight of the falsely exploited proprietary medicine." We maintain on the contrary that every unaccepted product is not *per se* a "falsely exploited proprietary medicine," as the editor well knows. He accepts such advertising himself. Then the editor further develops his theme: "In any war the most dangerous attack is the attack from the inside; the story of the Trojan horse is too well known to require repetition." Etc., etc. And

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Original articles and membership correspondence to Dr. Harold M. Camp, Monmouth, Ill.

Society proceedings and news items and changes in the mailing list to Managing Editor, 30 N. Michigan Ave., Chicago 2, Illinois.

Subscription price of this JOURNAL to persons not members of the Illinois State Medical Society is $3.00 per year, in advance, postage prepaid, for the United States, Cuba, Porto Rico, Philippine Islands, Hawaiian Islands and Mexico. $4.00 per year for all foreign countries included in the postal union. Canada, $3.50. Single current copies, 50 cents. By mail, 60 cents.

finally he places responsibility on councilors and delegates of societies who do not realize how they "share in the perpetuation of fraudulent and unscientific preparations and commercialized medicine."

And that's his story — greed, fraud, treason, unscientfic medicine. It would be absurd to believe that he really means all the vicious words he uses so carelessly. The great clinicians and research men of the four societies involved are not cheats and traitors and he knows it. Non-accepted products are not necessarily unscientific or dishonest and he knows that, too. The journals which accept advertising of some unaccepted products are not greedy or fraudulent; they maintain high standards for advertisements and they reject many, as we point out below. But they have been made the victims of an unfounded attack. Let us consider its implications further.

II.

Publication of the offensive editorial carries out a threat which was passed along to the responsible committees of the Illinois State Medical Society last fall. If the Society did not fall into line, the message said, the J.A.M.A. would carry a blistering editorial about the Illinois Medical Journal. The message went back by the same indirect route that the Illinois State Medical Society would not be intimidated and felt entirely competent to run its own affairs. Well, the blow has fallen and the collective hide of the Illinois State Medical Society remains whole and unvesiculated, doubtless to the disappointment of the editorial writer, as in 1943.

Then let us consider the manner of organization of the A.M.A. It must be pointed out as emphatically as possible that the A.M.A. is made up of the state societies, as they in turn are made up of county societies and the county societies of individual physicians, banded together for the improvement of medicine and their own advancement in wisdom and grace. The A.M.A. is a federacy of state societies, dependent on them for its existence. It is not a divinely instituted power; it has no authority to speak ex cathedra; it cannot impose dictatorial ukases on its membership. Its powers are only such as the representative state societies, meeting as the House of Delegates, choose to delegate to it and it exercises those pooled powers only as the agent of the component societies. No House of Delegates meeting has ever delegated to the A.M.A., or to the editor of its *Journal*, the power to say "join" or "sign" or "agree" with regard to the C.M.A.B. Nevertheless, the editor portrays a distorted idea of the relationship of the A.M.A. to the state societies and because of this over the years has assumed a role as "head man."

The C.M.A.B.'s organization was based on a sound idea, namely to enable the small state societies to combine their resources so that they offer a better advertising opportunity and to divide the resultant revenue to their mutual advantage. The Illinois State Medical Society publishes more than 10,000 copies of its *Journal*, which makes it a desirable advertising medium, and its revenue therefore would be a substantial addition to the income of the C.M.A.B. If the other castigated journals could also be whipped into line, the C.M.A.B. would be much more profitable as well as powerful. However, as far as Illinois is concerned, and probably also the other states involved, the problems of operating a scientific journal are not comparable to those of other states; the hazards, the complexities, the opportunity to serve public and profession vary everywhere. The best persons to solve these problems are the men who live in and with them — the physicians of each state.

In publishing such an editorial, the *Journal* editor has committed two serious faults against the best interests of organized medicine:

For one thing, despite the A.M.A.'s attacks on centralization in Washington which are part of its fight against socialized medicine, he is trying to flog four state societies, comprising nearly a third of the membership of the A.M.A., into a centralizing agency which has already come under the scrutiny of federal authorities.

For the second, he has made unjustifiable charges of fraud, greed and treason against a large segment of the organization. Every physician who knows the score will recognize their invalidity, of course, but unfortunately, because they have been printed in *The Journal of the American Medical Association*, those who would destroy organized medicine and all it stands for will seize the opportunity to quote them against all medicine. Thus, he has placed a weapon in the hands of the enemy which we may assume will be used against us in the not far distant future. If there is treason here, it is not on the part of the Illinois State Medical Society. He

would help pull down the whole edifice of modern medicine to bring four medical journals under his sway.

III.

Under the by-laws of the Illinois State Medical Society, the Council of the Society is charged with responsibility for the publishing of the *Illinois Medical Journal.* The Council acts through its Editorial Board and its Journal Committee. There is no provision for delegating that responsibility to the American Medical Association or to its subsidiary, the Co-operative Medical Advertising Bureau; any more than there is any authority in the American Medical Association to compel state journals to join the Co-operative Medical Advertising Bureau.

Let us consider for a moment the modus operandi of the *Illinois Medical Journal* under the Council:

Each advertisement that is offered to the *Illinois Medical Journal* is referred to a committee of practicing physicians who represent both general practice and the specialties and urban as well as rural practice. These men give serious, fair and experienced consideration to each advertisement and only on their full approval is it accepted for publication. It seems important, too, to emphasize that these censors are men who are really practicing medicine, not men who have been for many years in administrative work.

The *Illinois Medical Journal* has no salesmen or representatives. No one profits through commissions on the sale of advertising space.

Finally, not all advertisements offered to the *Illinois Medical Journal* are accepted. In the last two years, for instance, the *Journal* censors rejected more than $12,000.00 worth of advertising because of question regarding its origin or lack of proof regarding reliability of products.

No physician needs to be told that there are hundreds of pharmaceutical products which are used almost daily by himself and thousands of other entirely reputable and experienced men which are not "accepted." Yet they are sound scientifically and valuable clinically. Why should they not be advertised to the men who use them?

Another pertinent observation concerns the so-called "institutional" or "prestige" advertising by which a pharmaceutical or other manufacturer with few or no accepted products calls attention to himself by pointing to his many years of service, the purity of his whole line of products, and his general dependability, without mentioning any product by name. Such advertisements appear in the J.A.M.A. and many C.M.A.B. journals. This blanket endorsement implies that all the products of such companies are approved.

And finally, some of the advertisements for which the *Illinois Medical Journal* has been criticized have appeared in later issues of the J.A.M.A., with the Council's seal of approval. Between the *Illinois Medical Journal's* publication and that of the J.A.M.A., the Council has acted to approve the product. The product is unchanged, its advertising claims are still the same, but somehow by a subtle fiat, the action of the Council has converted the drug from "unscientific" and "unaccepted" to "scientific" and "accepted." Does "acceptance" and the conferring of the seal of approval of the A.M.A. work some strange magic that converts the same drug from a "fraudulent and unscientific" preparation into something ethical, and therapeutically effective?

IV.

Summing up:

1. The *Illinois Medical Journal* carries advertising of products which it finds honest and sound, and useful to practicing physicians, whether or not they are accepted by the Council. It will continue to do so.

2. *The Journal of the A.M.A.* carries prestige advertising of houses with both accepted and non-accepted products. It is difficult to understand the logic of the editorial analysis.

3. The deliberately dishonest presentation of the case in the J.A.M.A. editorial, which seeks to confuse "scientific" and "accepted" products, is in itself a confession of weakness. If the *Journal* editor had a good case, he would not need to descend to such unworthy tactics.

4. The *Journal* editor knows he need not fear about the orthodoxy of the physicians of Illinois, New York, Rhode Island and California.

5. Speaking for itself, Illinois does not need the C.M.A.B. In its own conscience, it knows that its decisions as to advertising are honest and sin-

cere. It will concede even that there may have been mistakes made. The A.M.A. *Journal* also has made its mistakes and should approach those of others therefore with sympathy, not venom. The pages of the *Illinois Medical Journal* are as pure and as scientifically sound as those of the J.A.M.A. and will continue so. Certainly there is no justification for the vicious, misleading and divisive attack which has been made on the Illinois State Medical Society and its members, as well as on our brethren in Rhode Island, California and New York. Such expressions have no place on the editorial pages of *The Journal of the American Medical Association.*

CONFERENCE OF COUNTY AND BRANCH SOCIETY OFFICERS

A conference of component society and branch society officers was held at the Hotel Pere Marquette, Peoria, on Sunday, March 14, with an excellent attendance. Many society officers from southern Illinois were unable to be present on account of a deep snow, which fell two days prior to the conference, making it impossible for them to drive to Peoria.

Four basic subjects had been selected for the conference as follows:

1. State Society Services for Members of the Illinois State Medical Society.
2. Services Rendered by the American Medical Association.
3. Committee on Medical Service and Public Relations.
4. National Physicians Committee for the Extension of Medical Service.

At the complimentary luncheon, Dr. Joseph Lawrence, Director, Washington office of the A. M. A. Council on Medical Service, was the speaker, and he gave some interesting information on the present trends in the nation's capitol relative to health and medical care considerations.

The program presented was well received and with question and answer periods at the end of the morning and afternoon sessions, it was quite obvious that the program was well worth while. One hundred eleven were served at the luncheon with a number of physicians coming in for the afternoon sessions, most of whom remained until the conference ended.

This conference was arranged at the suggestion of the Council, and if the officers of component and branch societies believe it advisable, it is possible that this will become an annual affair, and the short dinner meeting of secretaries at the annual meetings in May could be eliminated. It was suggested by several of those present at the conference that it might be advisable in coming years to hold a similar conference in each of the councilor districts, then have the annual Sunday Conference on a state-wide basis, with a program perhaps similar to that of the "Grass Roots Conference" scheduled the past two years by the American Medical Association. This type of arrangement, if it should be desired, should be presented in the form of a resolution before the House of Delegates at the Annual Meeting, then the Council could make the necessary plans well in advance in accordance with the instructions from the House.

The registrants were as follows:

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DeWitt	Wilfred Nowlin, Farmer City (Vice-president)	W. R. Marshall, Clinton
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Edgar		E. E. Terrell, Paris
Effingham		P. A. Adams, Altamont
Ford	M. D. E. Peterson, Paxton	Edward A. Tappan, Paxton
Franklin	R. C. Steck, Christopher	A. F. Barnett, West Frankfort
Fulton	Edwin F. Baker, Lewistown	O. M. Wood, Ipava
Greene	F. Earl Walker, Roodhouse	

COUNTY	PRESIDENTS	SECRETARIES
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JoDaviess	J. E. Gustafson, Stockton	
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LaSalle	Michael Gleason, Mendota	F. J. Maciejewski, LaSalle
Livingston	Andrew J. McGee, Dwight	
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McLean		W. H. Atkinson, Bloomington
Macon	Fred G. Ferguson, Decatur	Maurice D. Murfin, Decatur
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Marion		Max Hirschfelder, Centralia
Mason		J. W. McHarry, Havana
Monroe		J. A. Werth, Waterloo
Morgan		Robert R. Hartman, Jacksonville
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Pike	J. H. Rutledge, Pittsfield	
Randolph		W. W. Fullerton, Steeleville
Rock Island	Barwasser, Norbert, Moline (Representing president)	Joseph G. Gustafson, Moline
St. Clair		Owen J. Eisele, East St. Louis
Saline		W. J. Blackard, Harrisburg
Tazewell	Nelson A. Wright Jr., Pekin	Kenneth M. Calhoun, Tremont
Vermilion		Holland Williamson, Danville (Past Secretary)
Warren	James W. Marshall, Monmouth J. W. Firoved, Monmouth	Joseph C. Sherrick, Monmouth
Whiteside	Neal J. Marquis, Sterling	
Winnebago	Alexander Braze, Rockford William Ford Vice-president, Rockford E. H. Weld, Rockford, Past-president, State Society	W. H. Palmer, Rockford
Woodford	J. T. Wyatt, Roanoke	
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Branch Societies (Chicago Medical Society)		
Aux Plaines	H. E. Swantz, Oak Park	Walter Lawrence, Chicago
Englewood		H. A. Fitzmaurice, Chicago
North Shore	Clarence K. Jones, Chicago	J. L. Reichert, Chicago
North West	Matthew E. Uznanski, Chicago	S. F. Przygocki, Chicago
South Chicago	Wayne W. Flora, Chicago	E. V. McCarthy, Chicago
South Cook		R. C. Aiken, Blue Island
Stock Yards	E. J. Lukaszewski, Chicago	
West Side	E. J. Worthington	

Officers And Councilors Present

Berghoff, Robert S., Chicago
Blair, Charles P., Monmouth
Camp, Harold M., Monmouth
Coleman, Everett P., Canton
English, Harlan, Danville
Hawkinson, Oscar, Oak Park
Hedge, Harry M., Chicago
Hopkins, Percy E., Chicago
Hughes, L. J., Elgin
Hulick, Charles H., Shelbyville
Neece, Irving H., Decatur
Peairs, Ralph P., Normal
Scatliff, H. Kenneth, Chicago
Stevenson, Walter, Quincy

A. M. A. Representatives Present

Bauer, W. W., Chicago (Speaker)
Creer, Ralph P., Chicago (Speaker)
Hendricks, Thomas A., Chicago (Speaker)
Holloway, J. W. Jr., Chicago, (Speaker)
Lawrence, Joseph, Washington D. C. (Speaker)
Moore, J. J., Chicago

National Physicians Committee Representative

Edward F. Stegen, Chicago (Speaker)

State Society Representatives

John W. Neal, Chicago, General Counsel (Speaker)
James C. Leary, Chicago, Public Relations Counsel (Speaker)
Miss Ann Fox, Chicago, Secretary, Educational Committee (Speaker)
Mrs. Frances Zimmer, Monmouth, Assistant Secretary (Speaker)
Miss Jane Zimmer, Monmouth

ARE YOU A FELLOW OF THE AMERICAN MEDICAL ASSOCIATION?

Appointment to the Local Committee for the coming meeting of the American Medical Association have brought to light the fact that a goodly number of members of the Chicago Medical Society, otherwise qualified, are not Fellows of the American Medical Association.

Many men are not aware of the difference between Membership and Fellowship in the American Medical Association, evidenced by the following article which appeared in the Journal of the American Medical Association of February 7th.

Recording Membership and Fellowship in the New Directory

The Information Cards received from physicians who have listed their data for the new, Eighteenth Edition of the "AMERICAN MEDICAL DIRECTORY," indicate increasingly that many are not aware of the difference between "Membership" and "Fellowship" in the American Medical Association.

Here are the official definitions:

Every MEMBER in good standing in the constituent medical association of the state in which he is engaged in practice whose name is officially reported to the Secretary of the American Medical Association for enrolment becomes automatically a MEMBER of the American Medical Association and is not called on, as such, to pay any dues or to contribute financially to the Association.

MEMBERS of the American Medical Association, are eligible to apply for FELLOWSHIP.

To qualify as a FELLOW, a MEMBER in good standing is required to make formal application for FELLOWSHIP, to pay FELLOWSHIP dues and to subscribe for "The Journal." Applications must be approved by the Judicial Council. Fellowship dues and subscription to "The Journal" are both included in the one annual payment of $12. which is the cost of "The Journal" to subscribers who are not FELLOWS.

Members of constituent state medical associations pay dues to those bodies, but as MEMBERS they pay nothing to the American Medical Association. FELLOWS pay dues and subscription to "The Journal" in the sum of $12 a year, which has nothing to do with county or state dues.

According to an amendment to the By-laws of the American Medical Association, no physician may be officially recorded as a MEMBER of the American Medical Association except on the basis of membership in one constituent state medical association, and that one the association of the state in which the physician concerned maintains legal residence and engages in the practice of medicine.

Each Fellow receives a Fellowship Card from the Association annually as payment of his dues is recorded, which card is presented for admission to the Annual Meetings of the Association.

Physicians who are eligible for Fellowship should make formal application immediately so that they may attend the Chicago Session and so that a record of their Fellowship may be received in time to include the Fellowship symbol in their data listed in the new "AMERICAN MEDICAL DIRECTORY."

From the Chicago Medical Society Bulletin, Feb. 14, 1948.

AMERICAN MEDICAL ASSOCIATION SAYS DEMAND FOR SERVICE AT NIGHT MUST BE MET

The American Medical Association calls on county medical societies to meet the public demand for emergency medical service at night.

"From many sections of the United States," says an editorial in a recent (March 6) issue of The Journal of The American Medical Association, "complaints have come lately that persons who have called physicians late at night have been unable to secure attendance from either those whom they considered their family physicians or from specialists or, indeed, from any physician."

The American Medical Association says that large county medical societies or urban groups should maintain a physicians' telephone exchange which would take the responsibility for locating physicians if response is not made to the ringing of the telephone in the home or in the office.

The solution is simple and practical, requiring only a minimum of community organization. A number of county medical societies already maintain a physicians' telephone exchange where doctors' calls may be received and doctors located if their office or home telephones do not respond. Such an exchange can be utilized at night or on holidays, simply by furnishing the exchange with a list of physicians who are able and willing to make night calls. Such physicians would probably include the younger general practitioners, newcomers to the community, and others in general practice. If such a roster were available, and its availability widely publicized, night calls for medical service would soon gravitate to this center and the patient would be assured the services of a physician.

Under such a system the necessity for calling many doctors would be eliminated. Two calls at most would be necessary. Where there is no physicians' telephone service, it might be possible to have the hospitals cooperate by handling such night calls.

The Medical Society of the District of Columbia and the Milwaukee County Medical Society have found such a plan practical, as have a number of other societies.

By this simple and practical expedient, which is doubtless in effect in modified form in a number of communities, the sick can be served and the medical profession can redeem its pledge of unselfish public service.

It is highly important that where such arrangements exist they be brought to the attention of the lay people in the community through appropriate channels, not once but repeatedly, to keep the shifting populations well informed.

Few problems in the field of medical service have aroused so much public discussion. Whether resentment against physicians is justified or not, it does harm. The solution for this problem is so eminently simple and would reflect so favorably upon physician-patient relationship that medical societies everywhere are urged to give it serious consideration immediately.

THE G. P. AWARD — 1948 AND THEREAFTER —

The first annual award to the outstanding general practitioner, as authorized by The House of Delegates of the American Medical Association in Atlantic City last June, was given to a Colorado physician at the interim session of the House in Cleveland in January.

Immediately — without, of course, any reflection whatsoever on the recipient — criticisms were heard from many quarters about the method of selection. As we understand the situation, some 180 applications had been received by the A.M.A., coming from county medical societies, many local clubs, organizations, groups and even individuals who were desirous of presenting the name and qualifications of their own family physician for this high honor.

A special committee was selected to look these applications over, reduce them to five, and turn these names over to the A.M.A. Board of Trustees. The board selected three of the five, which were submitted to The House of Delegates, which then made the final selection.

State medical societies were notified of this plan only a short time before the deadline for receiving applications, however. In Illinois the notice was promptly relayed to county medical societies. We have no information as to the number of Illinois physicians whose names were presented for this award, but it is certain some candidates were offered.

Probably a more orderly and more efficient plan could be — and should have been — set up for selecting the recipient of this honor. It seemed to be the general feeling among the delegates at Cleveland who interested themselves in the subject that, while a worthy man had been

chosen this time, the same haphazard procedure might not work so well again. Another criticism heard pertained to the brief period allowed for choice.

Why should the naming of candidates to the A.M.A. be left open to the general public, when the doctors of each community, who are best-fitted to judge, are available to sift the possibilities at the point of origin? And why is the basic organization of the association disregarded in this function?

To eliminate criticism and contribute to an orderly, judicious selection, the following method is respectfully suggested for consideration for 1949 and thenceforward:

1. All candidates' names shall be first submitted to the county medical society. Such candidates may be named by the county society itself, by its individual members, or by lay persons or lay organizations of the community.

2. The local society shall consider all candidates and select the one it considers outstanding. A complete dossier shall be prepared on the one selected and forwarded to the state society.

3. Each state society, through appropriate committees, shall study all candidates presented by its component local societies and select one man to be its candidate. The record of its choice and recommendation shall be added to the dossier and the whole forwarded to the A.M.A.

4. The A.M.A., through a suitable committee and perhaps the Board of Trustees, shall screen all candidates entered by state societies, and make recommendations to the House of Delegates for final selection.

Such a procedure would simplify the problem of selection and assure the profession and public that the final choice will be made from among the nation's most worthy general practitioners. The screening operations would be carried out at each level by the agency best fitted to perform them — the candidate's confreres — and the selection so made would be eventually unanimous as far as the candidate's home society is concerned.

At the same time, the qualifications of each man are likely to be better presented, since his virtues are much more obvious to his fellow physicians than to lay persons. Who knows, for example, whether, among the 179 rejected candidates in 1948, there might not have been an even more deserving candidate whose worth went unappreciated because a single lay person presented his case?

Finally, a consideration which might be urged in favor of the procedure suggested is that, by the one operation, an outstanding general practitioner is selected for each state who is available for an award by his state society, whether or not he is chosen for the national award. Thus the ultimate purpose of the award — to publicize the importance of the general practitioner — would be served many times over throughout the country by the announcement in each state of that state society's candidate. That is because such an announcement, originating locally, would be more interesting to the newspaper public of each state than the announcement of a national award in a far-off city to a physician from an equally remote state. For instance, local newspapers in, say, Massachusetts would give far more attention to that state's outstanding general practitioner, as chosen by his state society, than they would to the award of a national distinction to a physician from Arizonia or Georgia or Oregon taking place in St. Louis.

Multiply that interest by 48 to get some idea of the importance of our suggestion to public education regarding the importance of general practice.

If it should be decided to announce county society candidates in the same fashion — a question that would take considerable thought — the impact of the effort would be, of course, immeasurably greater. But that is something for future discussion. Meanwhile the merits of a simple, orderly and far more effective procedure than has hitherto been followed are hereby presented for the consideration of organized medicine.



State Department of Public Health

HEALTH PROTECTION A GREAT ACHIEVEMENT

One of the great but little publicized achievements in America during the war years was the successful control over epidemic diseases and such communicable infection as tuberculosis, compared with experiences with such diseases by the European nations.

The course of diphtheria is a particularly striking example of how this country fared in this respect. In Europe, exclusive of Soviet Russia, Poland and the Balkans, not less than 600,000 cases of diphtheria occurred annually during the war period and immediate post-war years, according to estimates by the World Health Organization Interim Commission. Total deaths from this disease are estimated to have exceeded 150,000 during the period under consideration.

In sharp contrast is the total of 4431 cases of diphtheria in Illinois during the eight year period ending with 1947, an average of 554 cases per year. The trend of prevalence during the war years, moreover, was downward. For the five year period ended with 1947 there was a total of 1739 cases, an average of 348 per year, 1945 and 1947 being low years with 194 and 174, respectively. Throughout the United States the experience with diphtheria was similar to that in Illinois.

The control of typhoid fever in this country was no less striking than that of diphtheria as compared with European experience. Less dramatic but perhaps more far-reaching was the progress made against tuberculosis in this country during the war years while the European countries lost ground steadily against this disease. The death rate from tuberculosis followed a steady downward trend in America while in European countries it reached levels equal to the experiences prior to Koch's discovery of the tubercle bacillus.

An important factor in the favorable experience here compared with that in Europe appears to be the maintenance of the integrity of health departments. Although losses of trained personnel to the military was substantial, health departments in this country were able to maintain a good working organization, and to carry on essential services with special emphasis on such activities as immunization, child and maternal health and industrial hygiene. On the British Isles the public health service organization was strengthened during the war years and the experience there with communicable diseases paralleled that in America.

A hospital would not think of failing to provide a patient with a routine urinalysis and yet it is stated that only four-tenths of one per cent of cases of diabetes are discovered by such a routine procedure. The amount of significant tuberculosis discovered by providing a routine X-ray is much larger. It is also said that less than one per cent of patients provided a routine blood count have a blood dyscrasia. Less syphilis is found by providing routine Wassermann's than significant tuberculosis by providing a routine chest X-ray. Allen Filek, M.D., NTA Trans., 1947.

First tentative steps toward rehabilitation should be taken as soon as the patient's clinical status permits and the period of hospitalization should be used to the fullest extent for purposeful activities directed toward the final aim of physical, psychic and economic rehabilitation. Max Pinner, M.D., Ed., Am. Rev. Tbc., Aug. 1947.

PROGRAM

OF THE

One Hundred Eighth Annual Meeting

Illinois State Medical Society

CHICAGO, ILLINOIS

PALMER HOUSE

MAY 10, 11, 12, 1948

Headquarters for Annual Meeting



The Palmer House

All scientific sessions, all scientific and technical exhibits, and all social functions will be held in The Palmer House.

Program For The Annual Meeting

The official printed program in booklet form, will be distributed to all registrants at the annual meeting, as has been the custom for many years.

OUT OF STATE SPEAKERS

Again this year the various sections of the society have been given the privilege by the Council to invite an out of state speaker in each specialty. This year our official guests will be:

Henry W. Woltman, Professor of Neurology and Psychiatry, University of Minnesota, Professor of Neurology, Mayo Foundation Graduate School, Rochester, who will speak on "Differential Diagnosis of Poliomyelitis". He will appear under the auspices of the National Foundation for Infantile Paralysis.

Irving S. Wright, associate Professor of clinical Medicine, Cornell University Medical College, New York, will deliver the Oration in Medicine, having as his subject, "The Use of Anticoagulants in Treatment of Diseases of the Heart and Blood Vessels."

Carl H. Pfluetze, Cannon Falls, Minnesota, Medical Director, Mineral Springs Sanatorium, Cannon Falls; Instructor in Medicine, University of Minnesota Medical School, Minneapolis, will talk on "The Present Status of Streptomycin."

LeRoy A. Calkins, Kansas University Hospital, Kansas City, Kansas, Chief of Obstetrics and Gynecology, Kansas University Hospitals; Professor of Obstetrics and Gynecology, Kansas University School of Medicine, Kansas City, Kansas, will speak on "Management of Labor."

H. Trendley Dean, D.D.S., Chief, Dental Research Section, National Institute of Health, United States Public Health Service, Bethesda, Maryland, has as his subject "Relation of Fluorine to Dental Caries."

Leo G. Rigler, Professor and Chief, Department of Radiology and Physical Therapy, University of Minnesota Medical School; Consulting Roentgenologist, Minnesota Department of Public Institutions, Minneapolis, Minnesota, talks on "Early Diagnosis of Cancer of the Stomach."

George Morris Curtis, Chief of Surgery, Franklin County Sanatorium, Chairman of the Department of Research Surgery, and Professor of Surgery at Ohio State University College of Medicine, Columbus, Ohio, will talk on "The Treatment of Hyperthyroidism."

Robert Allen Moore, Consulting Pathologist, Barnard Free Skin and Cancer Hospital; Pathologist at Barnes Hospital, St. Louis Children's Hospital, St. Louis County Hospital; Edward Mallinckrodt, Professor of Pathology, Washington University School of Medicine, St. Louis, Missouri, chose as his subject, "Tumors of the Testes."

Catherine S. Armatruda, New Haven, Connecticut, from Yale University School of Medicine, Clinic of Child Development, will discuss "Problems of Growth and Development."

Carl H. McCaskey, Chairman and Professor of Otolaryngology, Indiana University School of Medicine, Indianapolis, will talk on "The Significance of Hoarseness."

PRESIDENT'S ADDRESS

The president of the Illinois State Medical Society, Dr. Irving H. Neece, Decatur, will give his address before the General Assembly in the Grand Ballroom on Monday morning, May 10, at 10:00 o'clock. He has chosen as his subject, "Medical Trends in a Changing World."

Scientific Programs

General Assembly

MONDAY MORNING, MAY 10, 1948

Grand Ballroom

9:00 — Opening of the 1948 annual meeting by the president — Irving H. Neece, Decatur

9:10 — "Present Management of Peptic Ulcer"
Joseph Barnett Kirsner and Walter Lincoln Palmer, University of Chicago, Chicago

9:30 — "Differential Diagnosis of Poliomyelitis"
HENRY W. WOLTMAN, Professor of Neurology and Psychiatry, University of Minnesota; Professor of Neurology, Mayo Foundation Graduate School, Rochester, Minnesota

10:00 — PRESIDENT'S ADDRESS: "Medical Trends in a Changing World"
Irving H. Neece, President, Decatur

10:30 — "The Significance of Hoarseness"
CARL H. McCASKEY, Chairman and Professor of Otolaryngology, Indiana University School of Medicine, Indianapolis

11:00 — "The Use of Radio Isotopes in Medicine"
George V. LeRoy, Northwestern University Medical School, Chicago

11:20 — ORATION IN MEDICINE — "The Use of Anticoagulants in Treatment of Diseases of the Heart and Blood Vessels"
IRVING S. WRIGHT, Associate Professor of Clinical Medicine, Cornell University Medical College, New York, N. Y.

MONDAY AFTERNOON, MAY 10, 1948

Grand Ballroom

1:30 — "Surgical Treatment of Irradiation Injuries"
Michael L. Mason, Associate Professor of Surgery, Northwestern University Medical School, Chicago

1:50 — "Roentgenological Aspects of Malignancy of the Small Bowel"
Edward L. Rypins, Consultant in Radiology to Veterans Hospital, Bloomington

2:10 — "The Present Status of Streptomycin"
CARL H. PFLUETZE, Medical Director, Mineral Springs Sanatorium, Cannon Falls; Instructor in Medicine, University of Minnesota Medical School, Minneapolis, Minnesota

2:40 — RECESS

3:00 — "Vaginal Hysterectomy"
Ralph A. Reis: Assistant Professor of Gynecology and Obstetrics, Northwestern University; Edwin J. DeCosta, Associate Attending Gynecologist and Obstetrician at Michael Reese Hospital, Chicago

3:20 — "Correlation of X-Ray Findings and Symptoms of Low Back Pain"
Roger A. Harvey, Chicago

3:40 — "The Physician's Responsibility Toward the Hard of Hearing and the Deafened"
Francis L. Lederer, Professor and Head of the Department of Laryngology, Rhinology and Otology, University of Illinois College of Medicine, Chief of the Otolaryngological Service, Research and Educational Hospital; Arnold A. Grossman, Consultant in the Division of Services for Crippled Children; Richard E. Marcus, Clinical Teaching Assistant, University of Illinois College of Medicine, Chicago.

4:00 — "Subarachnoid Hemorrhage"
Harold C. Voris, Clinical Professor of Surgery (Neurologic), Loyola University School of Medicine, Chicago

4:20 — "Restorative Surgery of the Face and Neck"
W. A. McNichols, Dixon

4:40 — "Streptomycin and Pencillin in the Febrile Obstetrical and Gynecological Patient"
H. Close Hesseltine, Associate Professor of Obstetrics and Gynecology, University of Chicago, Chicago

TUESDAY MORNING — MAY 11, 1948

Grand Ballroom

9:00 — "Treatment of Diverticulosis and Diverticulitis"
John L. Keeley, Assistant Clinical Professor of Surgery, Loyola University School of Medicine, Chicago

9:20 — "Clinical Interpretations of Sternal Punctures" (Color Slides)
Louis R. Limarzi, Assistant Professor of Medicine, University of Illinois College of Medicine; Paul L. Bedinger, Instructor, Department of Medicine, University of Illinois College of Medicine, Chicago

9:40 — "Management of Labor"
LeROY A. CALKINS, Chief of Obstetrics and Gynecology, Kansas University Hospitals, Professor of Obstetrics and Gynecology, Kansas University School of Medicine, Kansas City, Kansas

10:10 — RECESS

10:30 — "The Male Sex Hormone — Uses and Misuses"
Willard O. Thompson, Clinical Professor of Medicine, (Rush) University of Illinois College of Medicine, Chicago

10:50 — "The Treatment of Pneumonia with Single Daily Intramuscular Injections of Penicillin and Wax"
Italo F. Volini; Professor and Head of Department of Medicine, Loyola University School of Medicine and William S. Hoffman, James R. Hughes, John R. Peffer, Chicago

11:10 — "X-Ray Appearance of Stomach Following Vagotomy"
Paul C. Hodges, Professor of Roentgenology, University of Chicago, Chicago

11:30 — "Relation of Florine to Dental Caries"
H. TRENDLEY DEAN, D.D.S. Chief, Dental Research Section National Institute of Health, United States Public Health Service, Bethesda, Maryland

TUESDAY AFTERNOON, MAY 11, 1948

Grand Ballroom

1:30 — "Earlier Diagnosis in Carcinoma of the Breast"
Louis R. River, Associate Clinical Professor of Surgery, Loyola University School of Medicine, Chicago

1:50 — "The Illinois Hospital Construction Program"
Roland R. Cross, Director, Department of Public Health, State of Illinois, Springfield

2:10 — "Acute Intra-Partum Inversion of the Uterus"
Hubert Lee Allen, Frank A. Morrison, Floyd E. Atwell, Alton

2:30 — "Experiences in the Cytologic Diagnosis of Cancer"
Harold A. Grimm, Department of Pathology, University of Illinois College of Medicine, Chicago.

2:50 — "Plane Films of the Abdomen"
Harold L. Shinall, Bloomington

3:10 — Recess

3:20 — "Early Diagnosis of Cancer of the Stomach"
LEO G. RIGLER, Professor and Chief of the Department of Radiology and Physical Therapy, Minnesota University School of Medicine; Consulting Roentgenologist, Minnesota Department of Public Institutions, Minneapolis, Minnesota

3:50 — "Recent Technics in the Management of Bronchial Infections"
Edwin R. Levine, Director of Chest Service, Michael Reese Hospital, Chicago; Medical Director, Winfield Sanitarium, Winfield.

4:10 — "Management of Vaginal Discharges"
Walter J. Reich, Cook County Graduate School of Medicine, Professor of Gynecology and Obstetrics; Attending Gynecologist, Cook County Hospital, Chicago.

4:30 — "Orthopedic Deformities Aggravated by Treatment" (Motion Pictures)
Arthur H. Conley, Attending Orthopedic Surgeon, Cook County Hospital, Memorial and Oak Park Hospitals, Chicago

4:50 — "Detection of Various Chest Lesions by Mass X-Ray Surveys"
Dan Morse, Medical Director and Superintendent, Peoria Municipal Tuberculosis Sanitarium, Peoria.

WEDNESDAY MORNING, MAY 12, 1948

Grand Ballroom

9:00 — "The Role of the Pediatrician and General Practitioner in the Care of Crossed Eyes"
Louis Bothman, Clinical Professor of Ophthalmology, University of Chicago, Chicago

9:20 — "The Frequency of Urination in Women"
Leander W. Riba, Associate in Urology, Northwestern University Medical School, Chicago.

9:40 — "Present Advances in Surgical Treatment of Congenital Lesions of the Heart and Great Blood Vessels"
William E. Adams, Professor, Department of Surgery, University of Chicago, Chicago

10:00 — RECESS

10:30 — "Intrathecal Therapy Contraindicated for Meningitis"
Archibald L. Hoyne, Professor of Pediatrics, (Rush) University of Illinois College of Medicine; Clinical Professor of Pediatrics, University of Chicago.

10:50 — "The Treatment of Hyperthyroidism"
GEORGE MORRIS CURTIS, Chief of Surgery, Franklin County Sanatorium; Chairman, Department of Research Surgery, and Professor of Surgery at Ohio State University College of Medicine, Columbus, Ohio.

11:20 — "Tumors of the Testes"
ROBERT ALLEN MOORE, Consulting Pathologist, Barnard Free Skin and Cancer Hospital; Pathologist: Barnes Hospital, St. Louis Children's Hospital, St. Louis County Hospital; Edward Mallinckrodt Professor of Pathology, Washington University School of Medicine, St. Louis, Missouri.

WEDNESDAY AFTERNOON, MAY 12, 1948

Grand Ballroom

1:30 — "Problems of Growth and Development"
CATHERINE S. ARMATRUDA, Yale University School of Medicine, The Clinic of Child Development, New Haven, Connecticut.
2:00 — ORATION IN SURGERY: "Surgical Management of Gastric and Duodenal Lesions" — FRANK H. LAHEY, Lahey Clinic, Boston, Massachusetts.
2:40 — RECESS
3:00 — "The Response to Virulent Infection in BCG Vaccinated Children"
Eleanor I. Leslie and Sol Roy Rosenthal, Tice Laboratory and Clinic of the Municipal Tuberculosis Sanitarium, and the University of Illinois College of Medicine, Chicago
3:20 — "Unnecessary Minor Rectal Operations Done in the Presence of Cancer of the Large Bowel"
Raymond W. McNealy, Associate Professor Surgery, Northwestern University Medical School, and Durand Smith, Chicago
3:40 — "Treatment of Brucellosis"
C. Wesley Eisele and Norman B. McCullough, University of Chicago, Department of Medicine, Chicago.
4:00 — "Infectious Hepatitis"
Richard B. Capps, Associate in Medicine, Northwestern University Medical School, Chicago.
4:20 — "Twelve Year Summary in an Epileptic Clinic"
Alex J. Arieff, Associate, Department of Neuropsychiatry, Northwestern University Medical School, Chicago
4:40 — "Proctological Problems in Infants and Children"
James B. Gillespie, Urbana.

Meetings of Various Sections

Section on Eye, Ear, Nose and Throat

Paul H. Holinger, Chairman Chicago
Perry E. Duncan, Secretary Springfield

TUESDAY MORNING, MAY 11, 1948
CRYSTAL ROOM

9:00 — "X-Ray Therapy in Inflammatory Lesions of the Eyelid"
Edward C. Albers, Champaign
9:20 — "Menière's Disease and Menière's Syndrome"
Hans Brunner, Chicago
9:40 — "Clinical Significance of Non-Cancerous Lesions of the Nose"
Maurice F. Snitman, Chicago
10:00 — "Conjugate Ocular Deviations: Diagnosis and Treatment"
George P. Guibor, Chicago
10:20 — "Mucoceles of Frontal Sinus"
M. Tamari, Chicago
10:40 — "Present Status of Newer Technics in Surgery of the Septum"
M. H. Cottle, Chicago
11:00 — "Two Endoscopic Foreign Bodies of Unusual Size"
Stuart Broadwell, Springfield
11:15 — "Some Phases of Nasal Physiology"
CARL HEBER McCASKEY, Professor of Otolaryngology, Indiana University School of Medicine, Indianapolis. Guest speaker.
12:15 — Business Meeting

Section on Pediatrics

Frederick H. Maurer, Chairman Peoria
Eugene T. McEnery, Secretary Chicago

TUESDAY MORNING, MAY 11, 1948

PRIVATE DINING ROOM 17

SYMPOSIUM — 9:30 a.m. to 12:00 noon
"SCOLIOSIS IN ADOLESCENCE"
Pediatrician Robert Dean Hart, Peoria
Orthopedic Surgeon .. Edward L. Compere, Associate Professor of Surgery, Northwestern University Medical School, Chicago
Neurologist .. Douglas N. Buchanan, Assistant Professor, University of Chicago, Attending Neurologist, Children's Memorial Hospital, Chicago
Orthopedic Surgeon .. (Physiotherapy) Frances Elizabeth Brennecke, University of Chicago, Chicago

Section on Pathology

S. A. Levinson, Chairman Chicago
George Milles, Secretary Chicago

TUESDAY MORNING, MAY 11, 1948
PRIVATE DINING ROOM 8

9:00 a.m.
"Experiences with Cardio-lipin Antigen"
Dennis Dorsey (By Invitation) Department of Pathology, Augustana Hospital, Chicago
"The Determination of Plasma Prothrombin"-
Mr. Benjamin Fisher, Department of Internal Medicine, University of Illinois College of Medicine, Chicago
"Technical Aspects of Cytologic Cancer Diagnosis"
Harold A. Grimm, Department of Pathology, University of Illinois College of Medicine, Chicago.
"A Few of the Less Common Lesions of the Thyroid"
George Milles, Department of Pathology, Augustana Hospital, Chicago.

Business Session, and election of officers.

12:00 — Luncheon

Section on Radiology

Cesare Gianturco, Chairman Urbana
John H. Gilmore, Secretary Chicago

TUESDAY AFTERNOON, MAY 11, 1948
PRIVATE DINING ROOM 9

The Section on Radiology will present its prepared

papers before the General Assemblies during the annual meeting.

The meeting of the Section on Radiology will be held Tuesday afternoon, May 11, at 4:00 p.m. for the purpose of holding a FILM READING SESSION, to be presided over by the guest speaker of this Section, LEO G. RIGLER, Professor and Chief of the Department of Radiology, Minnesota University School of Medicine.

All members attending this meeting are requested to bring one or two interesting, difficult and proven cases for presentation and discussion.

This FILM READING SESSION will be followed by a short business meeting for the election of officers for the coming year. A social gathering of radiologists will probably follow the business meeting, and the time and place will be announced later.

Meetings of Special Groups, Luncheons, Dinners

House of Delegates

FOYER OF THE GRAND BALLROOM

MONDAY AFTERNOON, MAY 10, 1948

3:00 p.m. — The first meeting of the House of Delegates will be called to order by President Neece for Reports of Officers, Councilors, Committees, Appointment of Reference Committees, Introduction of Resolutions, and for the transaction of other business which may come before the House.

WEDNESDAY MORNING, MAY 12, 1948

9:00 a.m. The second meeting of the House of Delegates will be called to order by the President for the Election of Officers, Councilors, Committees, Delegates and Alternates to the American Medical Association, Reports of Reference Committees and action on same, action on Resolutions, and for the transaction of other business to come before the House.

The Annual Dinner

TUESDAY EVENING, MAY 11, 1948
Grand Ballroom — 7:00 o'clock

On Tuesday evening, May 11, the Annual Dinner honoring the President of the Society, Dr. Irving H. Neece, will be held. As has been the custom for many years, all past presidents of the Society will be guests at the dinner.

The main address of the evening will be given by Franklyn Bliss Snyder, Ph.D., Persident of Northwestern University. Dr. Robert S. Berghoff, Immediate Past President, will act as the Toastmaster.

Tickets will be on sale at the Registration Headquarters, and will also be available from the members of the Annual Dinner Committee, of which Dr. Fred H. Muller, Chicago, is the Chairman.

CENTRAL STATES SOCIETY OF INDUSTRIAL MEDICINE AND SURGERY

SUNDAY AFTERNOON, MAY 9, 1948
PRIVATE DINING ROOM 17

The annual meeting of the Central States Society of Industrial Medicine and Surgery will be held at the Palmer House, Chicago, on Sunday afternoon, May 9, 1948. There will be a joint meeting with the Chicago Society of Industrial Medicine and Surgery, but an open invitation is extended to all members of the profession to attend.

2:00 — "Differential Diagnosis of Painful Shoulders". Carlo S. Scuderi, Chicago

2:30 — "Coronary Diseases in Industry" Samuel L. Plice, Chicago

Following these two papers, each essayist will be given an additional five minutes for informal discussion of the subjects presented.

3:15 — "Differential Diagnosis of the Pneumoconioses" Oscar A. Sander, Milwaukee, Wisconsin

3:35 — "Treatment of Chest Conditions in Industry" Harold E. Davis, Chicago

3:55 — "The Significance of Chest Conditions in Industry to the Medical Director" L. E. Hamlin, Chicago

Following these papers, each essayist will again be allowed five minutes for unprepared discussion.

Following this scientific meeting, there will be held the annual business meeting of the Society.

AMERICAN COLLEGE OF CHEST PHYSICIANS ILLINOIS CHAPTER

MONDAY EVENING, MAY 10, 1948

The Illinois Chapter of the American College of Chest Physicians will hold a business meeting and a dinner at the Palmer House on Monday evening, May 10, 1948. The meeting will be addressed by a guest speaker following the dinner.

MEDICAL WOMEN'S ASSOCIATION

BREAKFAST MEETING, 8:00 a.m.
TUESDAY MORNING, MAY 11, 1948
PRIVATE DINING ROOM 9

Under the chairmanship of Dr. Luella E. Nadelhoffer, Chicago, the women physicians will be guests of the society at a complimentary breakfast. This has been an annual affair for the past few years, and has become a very popular gathering.

Doctor Nadelhoffer has as her committee this year,
Katherine W. Wright, Evanston, Vice Chairman
Georgiana Theobald, Oak Park
Johanna Heumann, Chicago
Edith Farnsworth, Chicago
Huberta Livingstone, Chicago
Helen Patton, Chicago.

The complimentary tickets will be distributed by Doctor Nadelhoffer, and she and her committee will plan an interesting breakfast program for the women physicians attending the annual meeting.

PHYSICIANS' ASSOCIATION — DEPARTMENT OF PUBLIC WELFARE — STATE OF ILLINOIS

TUESDAY MORNING, MAY 1
PRIVATE DINING ROOM 5

9:00 —

"The Psychiatrist's Role at the Illinois Children's Hospital"
Harold A. Greenberg, Institute of Juvenile Research, Chicago.

"Functional Psychoses in Children"
George Perkins, Institute of Juvenile Research, Chicago.

"Analysis of Causes of Death in a Mental Hospital"
Herman Josephy, Chicago State Hospital, Chicago.

"Studies on the New Pyrogen Fever Treatment"
Werner Lonsen and Erich Liebert, Elgin.

"Follow-up Studies of Patients with Pre-Frontal Lobe Lobotomy"
David J. Brown and Jack Coheen, Elgin.

VETERANS' SERVICE DINNER AND SECRETARIES' CONFERENCE

MONDAY EVENING, MAY 10, 1948

The Veterans' Service Dinner, with Dr. E. H. Blair as Chairman, and the Secretaries' Conference with Dr. W. O. Thompson as Chairman, and Dr. Maurice D. Murfin of Decatur, as Secretary, will hold a joint dinner this year.

A joint program is being arranged, and it is hoped that by providing a speaker of interest to all, an excellent crowd will attend the combined meeting of these two committees.

The program will be announced later.

ALUMNI LUNCHEONS

LOYOLA UNIVERSITY

Loyola University Medical Alumni Association will have a luncheon meeting on Wednesday noon, May 12, during the annual meeting of the Illinois State Medical Society. Tickets will be on sale near the Registration Desk.

At the luncheon the new dean at Loyola, Dr. James J. Smith, will be introduced. Following the general meeting, the Alumni will elect officers.

Last year over 120 Loyola Alumni gathered at the luncheon, and the Association hopes to have even a larger crowd this year.

UNIVERSITY OF ILLINOIS

The Medical Alumni Association of the University of Illinois will hold an annual luncheon on Tuesday, May 11, at 12 noon, at the Palmer House, Chicago. Class reunions are planned, and the election of officers will be held.

Dr. Frank Thometz, '08, will preside. Alumni and guests are invited to attend. Please make your reservations with Dr. M. H. Streicher, Secretary, Alumni Association, 1853 West Polk Street, Chicago. The cost per plate is $3.50. Mail your check early.

NATIONAL BOARD OF MEDICAL EXAMINERS

There will be a luncheon of the Diplomates of the National Board of Medical Examiners at the time of the meeting of the Illinois State Medical Society.

The luncheon will be held at the Palmer House Monday, May 10, 1948, at 12:30 p.m. The price will be $4.00.

All Diplomates who plan to attend should notify Dr. Willard O. Thompson, 700 North Michigan Avenue, Chicago 11, Illinois.

WOMAN'S AUXILIARY TO THE ILLINOIS STATE MEDICAL SOCIETY

The twentieth annual meeting of the Woman's Auxiliary to the Illinois State Medical Society will be held in Chicago at the Congress Hotel on May 10 and 11.

A cordial invitation is extended to the wives of all members of the Illinois State Medical Society to attend the sessions and social functions.

PRELIMINARY PROGRAM

MONDAY, MAY 10, 1948 — Congress Hotel

9:00 — Registration — Florentine Lounge, Third Floor

9:30 — Pre-Convention Board Meeting — Parlor A

1:30 — Opening General Session — Florentine Room
Address: Mrs. Eustace A. Allen, President, of the Woman's Auxiliary to the American Medical Association

6:00 — Dinner
Greetings — Dr. Percy E. Hopkins, President-Elect, Illinois State Medical Society

TUESDAY, MAY 11, 1948

9:00 — Registration — Florentine Lounge, Third Floor

9:30 — General Session — Florentine Room

12:15 — President's Luncheon — Grand Ballroom, Second Floor
Guest Speaker — Dr. J. Roscoe Miller, Dean, Northwestern University Medical School, Chicago

3:00 — Post-Convention Board Meeting — Parlor A Third Floor

Make hotel reservations early by writing Mr. Daniel Amico, Congress Hotel, Chicago, Illinois — and be sure to mention the Auxiliary.

FIFTY YEAR CLUB LUNCHEON WEDNESDAY NOON, MAY 12, 1948

Invitations to attend the Fifty Year Club Luncheon, at which the veteran physicians each year are guests of the Illinois State Medical Society, will be sent to all members of the Club by the chairman, Dr. Andy Hall of Mt. Vernon. Doctor Hall has been chairman of the group ever since its organization.

The luncheon will be held Wednesday noon, May 12. There are some 300 members, and notices will be sent to each urging that he attend. The program will be announced later when the Chairman has had an opportunity to make his plans.

THE ILLINOIS HEART ASSOCIATION

The Illinois Heart Association will have its annual dinner meeting, and a meeting of the Board of Directors on Monday, May 10. There will be a small committee meeting at 3:00 p.m. of the local lay chairmen; Board of Directors' Meeting at 4:00 p.m. and the annual dinner meeting at 6:00 p.m.

MATERNAL WELFARE COMMITTEE

Announcements relative to the annual luncheon of the Maternal Welfare Committee will be made later when the chairman of this group, Dr. Frederick H. Falls, Chicago, has had an opportunity to contact the members of his committee and make the necessary plans.

Final announcement will be contained in the official program to be distributed at the Registration Desk during the meeting.

Scientific Exhibits

John A. Mart, Chairman and Director of Exhibits Chicago
Coye C. Mason Chicago
Hilger P. Jenkins Chicago
Hugh A. Flack Chicago

The customary arrangements are being made for the Scientific Exhibits to be housed in the Red Lacquer Room at the annual meeting of the Illinois State Medical Society at the Palmer House, May 10-12.

Due to the illness of the Chairman and Director, it has been impossible for him to prepare the material on these exhibits for publication in this issue of the Illinois Medical Journal. Doctor Mart's work as Chairman of this committee has been outstanding, and we are assured of another group of excellent exhibits which should be seen by every physician registering at the 1948 meeting.

Notes on Technical Exhibits

ABBOTT LABORATORIES, Booth 110

You will find many interesting items on display here and you are most cordially invited to visit us. Abbott professional representatives will welcome an opportunity to discuss with you the newer developments in the fields represented by the products on exhibition.

AHLSTROM SURGICAL COMPANY, Booth 113

Ahlstrom Surgical Company, 226 East Huron Street, Chicago 11 — in the heart of the projected Chicago Medical Center — exhibits a selected line of fine Surgical Instruments of the highest quality. Included are many instruments for Brain, E. E. N. T. — and Plastic Surgery. Also on display are various physician's supplies and office items.

THE ALKALOL COMPANY, Booth 36

This exhibit features Alkalol, the balanced, alkaline, saline solution for the treatment of mucous membranes and irritated tissues. It is bland, nontoxic and effective and has been a favorite since 1896. We are also showing Irrigol, a powder which in solution makes an aseptic, slightly astringent vaginal douche. It is widely used also for colonic irrigations and as an effective rectal enema.

A. S. ALOE COMPANY, Booths 83 and 84

The Illinois representatives of the A. S. Aloe Company will welcome their friends at booths No. 83 and No. 84 where they will have on display a representative cross section of our complete line of Surgical, Hospital, and Laboratory equipment and supplies. Featured will be a complete line of government surplus instruments available at the present time — especially selected, fully certified instruments at approximately one half the regular cost.

AMES COMPANY, INC., Booth 18

Ames Company representatives will be glad to discuss Decholin, the standard hydrocholic acid for the treatment of bile tract diseases. They will be demonstrating Clinitest and Hematest — simplified tests for the detection of urine-sugar and occult blood.

THE ARMOUR LABORATORIES, Booths 78 and 79

The Armour Laboratories extends a cordial invitation to the members of The Illinois State Medical Society to visit their display of Medicinal Products of Animal Origin in booths Nos. 78 and 79.

The following books are available to members of the assembly: — "THE THYROID GLAND and Clinical Application of Medicinal Thyroid", "Function and Malfunction of the Biliary System", and the "Armour ATLAS of Hematology". Also, literature on other Armour preparations.

AUDIO DEVELOPMENT COMPANY, Booth 23

The ADC Audiometer for precision hearing tests is accepted under new rigid specifications adopted by the Council on Physical Medicine.

Constant research and development provide improved medical equipment. Audio Development Company has maintained a constant program of research and development and provide the profession with a new, accurate, convenient and dependable method for determining hearing acuity.

ADC Features: Actual speech hearing loss tests, simplified hearing loss dial, calibrated masking control, equal loudness control.

AYERST, McKENNA AND HARRISON, LTD., Booth 53

"Premarin" is a potent preparation of naturally-occurring, water-soluble equine conjugated estrogens containing sodium estrone sulphate as one of its estrogens.

"Premarin" combines a high degree of potency with convenience of administration and is well tolerated by the patient. It is supplied with the approval of the Research Institute of Endocrinology, McGill University, and is accepted by the Council of Pharmacy and Chemistry of the American Medical Association.

BABY'S VALET, INC., Booth 82

Baby's Valet — "The Prescription Diaper Service" — the one more doctors prescribe than any other now available to your patients.

The reason is simple. It is because we take every pre-

caution. As a member of the National Institute of Diaper Services, our diapers are subject to the strict, periodic inspections of the Usona BioChem Laboratories, of Philadelphia. Trained chemists, bacteriologists run culture tests throughout the year to make sure that our diapers meet rigid, high standards of sanitation and hygiene.

BARLAW-MANEY LABORATORIES, Booth 98

The Barlow-Maney Laboratories will feature their Aminophylline 1½ and 3 grain tablets, both plain and enteric coated. Barlow-Maney Laboratories are primary producers of aminophylline, thus are able to exercise complete and rigorous control at every stage of production.

The feature of the Barlow-Maney exhibit will be the mechanical laboratory apparatus showing the disintegration of the tablets with the enteric coating. The Barlow-Maney enteric coating is manufactured under license from the State University of Iowa.

BILHUBER-KNOLL CORPORATION, Booth 12

For information on the latest developments of the medicinal chemicals of Bilhuber-Knoll Corp. visit booth No. 12. Your discussions will be welcomed on Oenethyl, their new vasopressor; Octin, antispasmodic; Metrazol, analeptic and antianoxiant; Theocalcin, diuretic and myocardial stimulant, and Dilaudid, analgesic and cough sedative. These and their other dependable prescription chemicals are prescribed alone or in combinations with other drugs as the individual patient may require.

THE BLAKISTON COMPANY, Booth 45

The Blakiston Company will have an attractive exhibit of new books and a number of new editions of standard books for the practitioner at booth 45. Physicians are cordially invited to examine advance material on forthcoming important medical books. Ask to see the new Histopathologic Technic (Lillie); Stitt, Clough and Branham's Practical Bacteriology, Hematology, and Parasitology; Smith and Gault's Essentials of Pathology, etc. In the Recent Advances Series, new editions of Endocrinology, Medicine, Pathology, Clinical Pathology, Sex and Reproduction Physiology are a few of the volumes among others to see.

THE BORDEN COMPANY, Booth 54

We invite your attention to PROTOLAC, a new especially-formulated blend of intact proteins and high protein products derived from animal and vegetable sources. PROTOLAC is supplemented with choline and the amino acid cystine. PROTOLAC is indicated in high protein therapy in conditions requiring increased dietary protein of optimum nutritional value.

Likewise exhibited will be our long established products for infant feeding: BIOLAC, DRYCO, MULL-SOY, MERRELL SOULE SPECIAL MILKS, general purpose KLIM, and BETA LACTOSE.

THE BURDICK CORPORATION, Booth 93

The Burdick Corporation will exhibit in booth 93 their complete line of Physical Medicine Equipment. This includes Ultraviolet, Infra-Red Lamps, Short Wave Diathermy, and the Rhythmic Constrictor for the treatment of peripheral vascular conditions. A feature of particular interest will be the new X-85 Diathermy Unit, built to meet F. C. C. regulations.

CAMBRIDGE INSTRUMENT COMPANY, INC., Booth 15

The "SIMPLI-TROL" Portable Models of its traditionally accurate electrocardiograph and electrocardiograph-Stethograph-Pulse Recorder will be exhibited by the Cambridge Instrument Company. Two other important instruments will also be shown. The new Cambridge Electro-kymograph continuously records heart border motion; it utilizes a pick-up device fastened to the screen of any standard fluoroscope. The new Cambridge Plethysmograph records variations in the size of human extremities as determined by the fullness of the blood vessels; tracings are standardized, quantitative, and reproducible.

W. H. Jefferson in charge.

CAMEL CIGARETTES, Booths 26, 27 and 28

CAMEL Cigarettes will present a dramatic full color review of their recent medical research on smoking, as well as the details of the nationwide survey showing that "More Doctors Smoke Camels Than Any Other Cigarettes." Another panel will illustrate the absorption of nicotine in the respiratory tract. Representatives will be present.

CARNATION COMPANY, Booth 108

You are invited to visit booth 108, where you will see an attractive display on Carnation Evaporated Milk — "the milk every doctor knows." Some valuable information on the use of this milk for infant feeding, child feeding, and general diet will be presented and the method by which Carnation is generously fortified with pure crystalline Vitamin D — 400 U. S. P. units per reconstituted quart — will be explained. Interesting literature will also be available for distribution.

THE CHICAGO PHARMACAL COMPANY, Booth 96

The CHIMEDIC exhibit this year will feature two preparations containing the much-discussed unsaturated fatty acids. Another item worthy of note will be a complete parenteral line built around several products of estradiol, U. S. P. Of interest to our many friends will be such new additions to the line as digitoxin, U. S. P., prepared in our own laboratories, and several new additions to the childrens' remedies.

CIBA PHARMACEUTICAL PRODUCTS CO., Booth 71

Ciba Pharmaceutical Products, Inc., Summit, N. J., (Booth No. 71), invite you to visit their exhibit for latest information on steroid sex hormones. METANDREN Linguets, the most potent orally active androgen, especially designed for absorption from buccal mucosa; LUTOCYLOL Lingents, the progestational hormone for sublingual administration, and ETHINYL ESTRADIOL Tablets will be featured.

Representatives in attendance will be glad to answer questions about these and other Ciba products.

THE COCA COLA COMPANY, Booths 65 and 66

Ice-cold Coca-Cola will be served the delegates through the joint cooperation of The Coca-Cola Company and the Coca-Cola Bottling Co. of Chicago, Inc.

DEPUY MANUFACTURING COMPANY, Booth 70

Fracture appliances. Exclusive representatives for Lorenzo Screws and Lock Plate for hip fractures, and the Downing Stapling Set for Bankhart Operation of shoulder.

DOAK COMPANY, INC., Booth 39

Physicians interested in Dermatology please visit Booth 39. Parenteral medication for the treatment of arthritis, anemia, and luetic infections. Mr. Chas. Ruhlmann will gladly give any information desired.

THE DOHO CHEMICAL CORPORATION, Booth 59

The Makers of AURALGAN are showing at this meeting, their sulfa preparation O-TOS-MO-SAN, indicated in the treatment and control of chronic suppurative ears. MALLON, division of DOHO is introducing our new topical anesthesia, RECTALGAN for relief of pain and itching in hemorrhoids and pruritus. This new therapy enjoys many advantages over the outmoded rectal suppositories and ointments.

EISELE & COMPANY, Booth 64

Eisele & Company, Nashville, Tennessee, will exhibit in Booth 64 a complete line of clinical thermometers appealing both to hospitals and to individual doctors. They will also exhibit their familiar green glass syringe, hypodermic and special needles, and surgical specialties. They will welcome visits from old friends and new in the Illinois medical profession.

ELECTRO-MEDICAL EQUIPMENT COMPANY, Booth 57

The Electro-Medical Equipment Company will feature the Liebel-Flarsheim Model SW-227 Short Wave Diathermy, a unit approved by the Federal Communications Commission and complete with pads, cable, air-spaced plates, and the patented L-F hinged treatment drum. A general cross section of our equipment will also be shown.

ELI LILLY AND COMPANY, Booth 109

The Lilly exhibit for 1948 features a presentation on "Dolophine Hydrochloride" (Methadon Hydrochloride, Lilly). You will be interested in the comparison of post-operative relief of pain with "Dolophine Hydrochloride', 10 mg. and Morphine, 15 mg. Many other Lilly products will be on display. Attending Lilly medical service representatives will be present to aid visiting physicians in every way possible.

ENCYCLOPAEDIA BRITANNICA, Booth 80

The Encyclopaedia Britannica has always contained a vast amount of authoritative medical information beginning with the first edition which was issued in 1768.

The latest printing of Encyclopaedia Britannica contains so much material that the editors have issued a Reading Guide on "The Story of Medicine". Instead of being a complete exposition of the subject, this booklet guides one quickly and easily to the material contained in Britannica itself.

While a great deal of the material is written in the layman's language, no attempt has been made to change the phraseology of the medical men who have been asked to contribute articles on various specialties.

FARNSWORTH LABORATORIES, Booth 56

We invite you to see our representative at booth number 56 at the Convention. He will have some interesting data regarding the latest clinical approach on the treatment of Brucellosis or undulant fever.

H. G. FISCHER & CO., Booth 74

Visitors to the 108th Annual Session of the Illinois State Medical Society are cordially invited to visit our FISCHER display and to inspect the new units of FISCHER X-Ray and Electro-Surgical-Medical Apparatus to be shown. FISCHER apparatus is characterized by new levels of precision design and convenient, efficient operation. Members of the FISCHER staff will be present at all hours to answer questions and to demonstrate unique features of FISCHER design and performance. You will be welcome at our FISCHER booth.

C. B. FLEET CO., INC., Booth 9

PHOSPHO-SODA (FLEET), the pure, stable aqueous concentrate of the two U. S. P. Sodium Phosphates has been detailed to the medical profession for more than 50 years. Our representatives, Mr. J. Gordon Myers and Mr. William S. Holt, at booth 9 will welcome the opportunity of discussing with you its application in hepatic and gallbladder dysfunctions and in conditions requiring a saline laxative.

FREEMAN X-RAY COMPANY, Booths 106 and 107

Freeman X-Ray Company will display Mattern X-Ray apparatus ranging from small Portables to 200 MA units with rotating anode tubes. Particularly featured this year will be low cost and small space requirements. Something new in technical advice and service that will enable many physicians who have been without the benefit of X-Ray in their office to now be able, with complete confidence, to have equipment installed.

HOFFMANN-LA ROCHE, INC., Booth 35

Roche is happy to exhibit at the coming meeting of the Illinois State Medical Society. They invite members of the society to visit booth 35 where members of the representative staff will be present to discuss such new products as SYRUP SEDULON, a sedative cough preparation; THEPHORIN, an anti-histamine compound; RAOPAKE, a contrast medium; and other products of interest to physicians.

HYGEIA NURSING BOTTLE COMPANY, INC., Booth 17

You are cordially invited to visit booth 17 to see the advantages of the new improved 4 and 8 ounce Hygeia Nursing Bottle Units. Learn why prescribing the Hygeia unit — including bottle, nipple, and cap — will help mothers overcome feeding problems.

IRWIN, NEISLER & COMPANY, Booths 104 and 105

Professional service representatives will be in attendance at our Exhibit to answer inquiries in regard to the newest development in the treatment of essential hypertension, biologically standardized Veratrum Viride under the trade names of "Veratrite" and "Vertavis".

You are cordially invited to solicit information in regard to these products. Literature and samples furnished upon request.

LANTEEN MEDICAL LABORATORIES INC., Booth 97

Lanteen Medical Laboratories Inc. welcomes you to their exhibit at booth 97. Featured will be the improved LANTEEN FLAT SPRING DIAPHRAGM. Representatives will be pleased to discuss the new diaphragm fitting technique which you will find of great interest.

LEA & FEBIGER, Booth 89

This exhibit is of particular interest because of such outstanding new books and new editions as Froham—Brief Psychotherapy; Ormsby and Montgomery—Diseases of the Skin; Krimsky—Binocular Imbalance; Buchanan—Functional Neuro-Anatomy; Thienes and Haley—Clinical Toxicology; Goldberger—Unipolar Lead Electrocardiography; Stimson—Common Contagious Diseases; Burch and Reaser—Primer of Cardiology; and others, including such leading standard works as Joslin—Treatment of Diabetes Mellitus; Musser—Internal Medicine; Levinson and MacFate—Clinical Laboratory Diagnosis and Wintrobe—Clinical Hematology. Our representative will be glad to help you with your individual book problems.

LEDERLE LABORATORIES DIVISION, Booth 3

Lederle Laboratories will provide an up-to-date display covering several of the recent advances in medicine contributed by this Company.

Folvite folic acid will be shown in its original tablet form as well as in an elixir suitable for dosage in children. Folvron, containing both folic acid and ferrous sulfate will likewise be shown.

Alcohol refinement will be shown in its application to the preparation of diphtheria and tetanus toxoids. The highly accurate new syphilis diagnostic involving the Cardiolipin Lecithin Cholesterol mechanism will be displayed. In addition, protein nutrition and its relation to Ledinac will be discussed.

LIBBY McNEILL & LIBBY, Booth 81

Physicians are cordially invited to stop and discuss Libby's strained and homogenized baby foods, which are featured.

J. B. LIPPINCOTT COMPANY, Booth 115

J. B. Lippincott Company, Philadelphia 5, Pa. (Booth 115), presents a complete line of Lippincott Selected Professional Books and Journals.

Be sure to see the current issue of AMERICAN PRACTITIONER — the monthly medical journal designed to shorten the lag between experiment and practice.

Titles of new books and new editions include: Surgery of the Ambulatory Patient; Ear, Nose and Throat, Symptoms, Diagnosis and Treatment; Diagnosis in Daily Practice; Signs and Symptoms; Fundamentals of Psychiatry; Surgical Treatment of the Abdomen; Essentials of Pharmacology; Treatment by Diet.

A. E. MALLARD LABORATORIES, INC., Booth 75

A. E. Mallard extends an invitation to all members of the Illinois Medical Society to visit our display. On hand to greet you will be some old acquaintances as well as some new. On display will be our latest developments in the ethical pharmaceutical field.

M & R DIETETIC LABORATORIES, INC., Booth 86

M and R Dietetic Laboratories, Inc., Booth Number 86, will display Similac, a food for infants deprived either partially or entirely of breast milk. Messrs. E. M. Stevens and A. E. Boodel will appreciate the opportunity to discuss the merit and suggested application for both the normal and special feeding cases.

MEAD JOHNSON & COMPANY, Booths 76 and 77

Amigen and Protolysate will be on display at the Mead Johnson Exhibit at your Illinois State Medical Society Meeting. Mead Johnson has pioneered the amino acid field commercially; the products have been described in more than one hundred and forty articles in the medical literature; this year they are available. Trained representatives will be at the Mead Exhibit to discuss details of the new amino acid products. Shown also will be Dextri-Maltose, Pablum, Oleum Percomorphum and other Mead Products used in Infant Nutrition. Protenum, a new high-protein product will be displayed. Also Lonalac for low-sodium diets.

MEDCO PRODUCTS COMPANY, Booth 11

You are cordially invited to visit Medco Products Company's booth No. 11, exhibiting Teca two circuit Hydrogalvanic units, an important contribution to physical medicine for office and institutional treatments, recommended for Arthritis, Neuritis, Peripheral Nerve Injuries and Functional Rehabilitation. It is being used by a large and increasing number of physicians as well as Army, Navy and Veterans Hospitals all over the country. Ask our Mr. DeGroff about this therapy and its results.

MEDICAL AIDS INC., Booth 13

Medical Fabrics, Inc., the originators of the combination bandage, pressoplast plus contura, will display a complete line of bandages and first aid dressings. Our representative will describe in detail the technique of applying the combination bandages which are used in the treatment of varicose veins, ulcers and phlebitis.

MEDICAL ARTS SUPPLY COMPANY, Booth 14

Our firm handles a complete line of medical supplies and equipment — from a bank pin to an X-Ray. Our exhibit provides samples of this variety with such accredited trade names as Sklar, Hamilton, Ritter, ACMI, Baum, Birtcher & McIntosh. Your attendance is solicited.

THE MEDICAL PROTECTIVE COMPANY, Booths 111 and 112

The most exacting requirements of adequate liability protection are those of the professional liability field. The Medical Protective Company, specialists in providing protection for professional men, invites you to confer, at their exhibit, with the representatives there. They are thoroughly trained in Professional Liability underwriting. Ask these representatives to explain how their Company meets the exacting requirements of adequate liability protection, which are peculiar to the Professional Liability field.

THE WM. MEYER COMPANY, Booth 20

The Wm. Meyer Company has produced X-Ray Units in a wide range of capacities for use by the Medical Profession for over forty-three years. We have recently completed a merger with The Federal Electric Company, of Chicago which enables us to take advantage of their large factory for greater production and engineering advances.

C. V. MOSBY COMPANY, Booth 10

New and recent releases to be displayed at Booth No. 10, by the C. V. Mosby Company will include Crossen "Operative Gynecology", Ackerman-Regato "Cancer", Watson "Hernia", Clendening-Hashinger "Methods of Diagnosis", Pottenger "Tuberculosis", Johnstone "Occupational Medicine and Industrial Hygiene", Top "Communicable Diseases", Jeans-Marriott "Infant Nutrition", Eve "Handbook of Fractures", McCormick "Pathology of Labor, the Puerperium, and the Newborn", Treiger "Atlas of Cardiovascular Diseases", Goar "Synopsis of Ophthalmology", Shands "Handbook of Orthopedic Surgery", Dunbar "Synopsis of Psychosomatic Diagnosis and Treatment" and Wiener "Skin Manifestations of Internal Disorders." Your examination of any of these, as well as the many other titles to be shown, is cordially invited.

V. MUELLER & COMPANY, Booth I

A cordial invitation is extended to visit the exhibit of V. Mueller & Company, Booth No. 1, consisting of a representative line of instruments for all branches of surgery, the latest in treatment and examining office furniture, and F. C. C. approved short wave equipment.

ORTHO PHARMACEUTICAL CORPORATION, Booth 95

The Ortho Exhibit presents the well-known line of Ortho Gynecic Pharmaceuticals. Two new products are featured — Nidoxital Capsules for the control of nausea and vomiting of pregnancy; and Dienestrol Cream, a preparation containing the new synthetic estrogen, Dienestrol, intended for topical application in the vagina in the treatment of atrophic and senile vaginitis.

PARAPHONE HEARING AID, INC., Booth 46

In the Paravox display the Paravox Hearing Aids will be shown, in full detail, including the exclusive, plastic, internal-type chassis, the compact, "slide-type" (no screws required), metal outer case of very light alloy, and the unique chassis-replacement plan.

Demonstrations of the quick and easy assembly of all component parts will be held. Also a full explanation of the "usual HEARzone" theme, and its positive meaning for the consumer, will be given.

PARKE, DAVIS & COMPANY, Booth 85

Members of PARKE, DAVIS & COMPANY'S MEDICAL SERVICE STAFF, fully informed regarding the progress in Pharmaceutical and Biological Research, and desirous of presenting various new advancements to you, will be on hand at our Technical Exhibit to discuss new and old products. Featured, will be such outstanding Specialties as — BENADRYL, VITAMINS, ADRENALIN, OXYCEL AND THROMBIN, TOPICAL. Also, the most recent types of BIOLOGICALS, including other therapeutic agents of chemotherapeutic interest, will be displayed. We invite you to visit our Exhibit while attending this Meeting.

PET MILK SALES CORPORATION, Booths 62 and 63

An actual working model of a milk condensing plant in miniature will be exhibited by the Pet Milk Company in booths 62 and 63. This exhibit offers an opportunity to obtain information about the production of Pet Milk, its use in infant feeding, and the time-saving Pet Milk services available to physicians. Miniature Pet Milk cans will be given to the physicians who visit the Pet Milk booth.

PHILIP MORRIS & COMPANY, LTD., INC., Booth 52

Philip Morris & Company will demonstrate the method by which it was found that Philip Morris Cigarettes, in which diethylene glycol is used as the hygroscopic agent, are less irritating than other cigarettes. Their representative will be happy to discuss researches on this subject, and problems on the physiological effects of smoking.

PICKER X-RAY CORPORATION, Booths 102 and 103

PICKER X-RAY CORPORATION will exhibit their 200 Milliampere 4 Valve Diagnostic X-Ray Unit. This unit is equipped with a Rotating Target tube over the table and a separate tube inside the table. Radiography or Fluoroscopy can be performed in every position from Trendelenberg to Vertical. A full line of X-ray accessories will also be displayed.

PROFESSIONAL EQUIPMENT COMPANY, Booths 4 and 5

The recently developed Table Combination Radiographic and Fluoroscopic Unit (Model TC-2, patents pending) will be exhibited at the Palmer House in Chicago by the Professional Equipment Company, Chicago. This unit is designed for office use, especially where space is limited. It comprises within itself a standard examining table and self-contained radiographic and fluoroscopic apparatus, including the control unit and storage space for unexposed film. Installation requires no special wiring, nor special construction, such as floor rails.

RADIUM AND RADON CORPORATION, Booth 92

The Radium and Radon Corporation will exhibit radium tubes, needles and accessories. Radon implants and accessories will also be shown. Complete information will be available on the sales and leasing plans of Radium and Radon.

REED AND CARNRICK, Booth 19

Meprane, a new synthetic estrogen which affords prompt relief of menopausal symptoms and imparts a sense of well-being without unpleasant side reactions is being featured at the Reed and Carnrick booth. Literature and samples are available.

REXAIR DIVISION, MARTIN-PARRY CORP., Booth 29

Rexair is the modern cleaning appliance that uses water instead of a bag. With Rexair, you clean the air you breathe as well as the rugs and furnishings. The dirt and dust are trapped in water, then flushed down the drain. There is no dirty bag to empty. With this home and hospital appliance, you can purify the air, humidify, de-odorize and vaporize, scrub the floors and shampoo the rugs. Rexair comes equipped with attachments to do every phase of cleaning.

J. B. ROERIG & COMPANY, Booth 25

Attending physicians are cordially invited to attend the exhibit of J. B. Roerig and Company. Members of the Professional Service Department will be on hand to explain in detail the several products which will be displayed. Two new preparations will be featured: HEPTUNA with FOLIC ACID and OBRON, the new dicalcium phosphate, vitamin and iron capsule, will have appeal for many physicians. Company representatives will welcome all inquiries and will be pleased to extend the courtesy of the Professional Service Department to all visitors.

RYSTAN COMPANY, INC., Booth 30

CHLORESIUM preparations contain the water-soluble derivatives of Chlorophyll "a" ($C_{55}H_{72}O_5N_4Mg$). They are natural, nontoxic biogenic healing agents indicated in the topical treatment of wounds, burns, ulcers, dermatoses and similar lesions; also for treating acute and chronic inflammatory conditions of the upper respiratory tract and oral cavity. These cell-stimulating, biotherapeutic preparations also promptly deodorize malodorous conditions. Supply: CHLORESIUM SOLUTION (PLAIN) — An isotonic saline solution — Bottles, 2 fl. oz., 8 fl. oz. CHLORESIUM OINTMENT — a hydrophilic base for prolonged absorption — Tube, 1 oz., jar, 4 oz. CHLORESIUM NASAL SOLUTION — An isotonic saline solution suitably buffered for nasal instillation — Bottles, ½ fl. oz. (with dropper stopper), 2 fl. oz., 8 fl. oz.

SANBORN COMPANY, Booth 61

At Booth No. 61, Sanborn Company will have on display the latest in electrocardiographic and metabolism testing equipment. Doctors are cordially invited to drop in and have the instruments demonstrated for them.

SANDOZ CHEMICAL WORKS, INC., Booth 90

Sandoz Chemical Works, Inc., are exhibiting a new anti-epileptic drug—MESANTOIN (methyl-phenyl-ethyl-hydantoin), for the control or reduction in the frequency of epileptic seizures. Other new products are Dihydroergotamin "Sandoz" (D. H. E. 45), the new improved non-narcotic relief for migraine — Dihydroergotamine lessens incidence of nausea and vomiting, uterotonic effect of ergotamine is practically eliminated, sympathico-inhibitory effect is enhanced; Glysennid for constipation — contains the crystalline glycosides from senna leaves, Sennosides A and B; also displayed are Cedilanid, stable preparation of Lana-

toside C, a crystalline glycoside from Digitalis Lanata, not present in purpurea; Ipesandrine Syrup for the relief of cough and bronchial disorders — containing the active alkaloids of Dover's Powder in pure form with ephedrine. Other well known Sandoz products include Gynergen, Digilanid, Bellafoline, Belladenal, Bellergal, Calcibronat, Scillaren, Strophosid, Calglucon and 'Neo-Calglucon.'

W. B. SAUNDERS COMPANY, Booth 37

This Company will exhibit their complete line of books including the following new books and new editions: Hyman's "Integrated Practice of Medicine," Kinsey's "Sexual Behavior in the Human Male," Rubin's "Diseases of the Chest and X-ray Diagnosis," Dowling's "Acute Bacterial Diseases," Beckman's "Treatment," Brams' "Treatment of Heart Disease," Cecil's "Practice of Medicine," Duncan's "Metabolic Diseases," Boyd's "Surgical Pathology," DeLee & Greenhill's "Obstetrics," Fishbein's "History of the American Medical Association," Todd & Sanford's "Clinical Diagnosis by Laboratory Methods," Christopher's "Minor Surgery," Sollmann's "Pharmacology," Cutting's "Therapeutics," Novak's "Obstetric and Gynecologic Pathology," Wechsler's "Neurology," Bastedo's "Pharmacology, Therapeutics and Prescription Writing," The American Illustrated Medical Dictionary, Rice's "Bacteriology," McCombs' "Internal Medicine in General Practice," Wharton's "Gynecology and Female Urology," and many others.

SCHERING CORPORATION, Booth 2

Important new hormone and pharmaceutical preparations will be featured at the Schering booth. **Micropellats Progynon** is a new potent form of the female sex hormone. **Combisul** and **Combisul Liquid** are the triple sulfonamide combinations which eliminate the dangers of sulfonamide renal damage. New high potencies of **Oreton-M, Pranone** and **Progynon-B** are presented. Schering Professional Service Representatives will welcome you and will be happy to answer your inquiries concerning Schering's new products as well as the older and time-tested hormones, x-ray diagnostic, chemotherapeutic and pharmaceutical preparations.

G. D. SEARLE & CO., Booth 94

You are cordially invited to visit the Searle booth where our representatives will be happy to answer any questions regarding Searle Products of Research. Featured will be Hydryllin, the new anti histaminic, as well as such time-proven products as Searle Aminophyllin in all dosage forms, Metamucil, Ketochol, Floraquin, Kiophyllin, Diodoquin, Pavatrine and Pavatrine with Phenobarbital.

SECURITY LABORATORIES, Booth 38

The Security Laboratories, Burlington, Iowa, the midwest's complete physicians' and surgeons' supply house, is exhibiting Hamilton Furniture, McKesson Basal Metabolors, Sklar stainless steel instruments, Profex X-Rays, American Cystoscope Makers, Inc., Urological Instruments and Catheters, Bard-Parker products, Davis and Geck Sutures, B. F. Goodrich Rubber Sundries, and Davol Company Rubber Sundries, Ritter Company Eye, Ear, Nose and Throat Equipment, and other products of leading manufacturers. The exhibit will be under the direction of K. P. McCullough, James T. Snider, Jr., and J. B. Wahl. The new Microtherm, Shortwave therapy by Radar will be featured.

SHARP & DOHME, Booth 100

Sharp & Dohme extends a cordial welcome to all visitors at booth No. 100. Items on exhibit include a new dosage form of "Delvinal" Sodium Vinbarbital for the production of obstetric amnesia and analgesia, new antibiotic preparations including Tyrothricin along with "Sulfathalidine" and Sulfasuxidine, intestinal bacteriostatic agents.

SIEBRANDT MFG. CO., Booth 32

The Siebrandt Mfg. Co. will show the Goodwin Bone Clamp, which simplifies the technique for open reduction of long bone fractures. It also controls direction of drilling, indicates diameter of bone, and calculates the correct length of screw to use for applying Bone Plates. The Davidson Director is a new simplified Nail Guide and provides a short cut to accurate hip nailing. The Clayton Transfixion Splints are built of plastic, transparent to X-Ray, simple in construction, extremely ligh tin weight, have no complicated mechanism to adjust, eliminate plaster cast and reduce cost and time of treatment. They will also show a complete line of Bone Instruments and Fracture Equipment.

SMITH DORSEY COMPANY, Booth 16

Parenteral products will be featured at the Dorsey Exhibit. You are welcome every day at the Dorsey Booth. Our representatives will be happy to give you any information on Dorsey products which you desire. Liver, Estrogenic Hormones, Progestin and Vitamin Injectables will all be available for examination and discussion.

SMITH, KLINE & FRENCH LABORATORIES, Booth 87

Eskay's Oralator is featured at this exhibit.

Eskay's Oralator provides a revolutionary method of cough control. Inhaled by MOUTH, the Oralator's anesthetic-analgesic vapor (2-amino-6-methylheptane) is delivered directly to the nerve endings in the trachea and larynx, where it controls cough within a matter of seconds. Safe and effective, the Oralator is indicated in those types of coughs for which codeine would ordinarily be prescribed. Unlike sedatives and narcotics, however, the Oralator produces no appreciable systemic effects.

Our specially trained professional representatives will be glad to answer questions concerning the possible uses of our products in your practice.

SPENCER, INCORPORATED, Booth 55

Our exhibit features Spencer Supports, individually designed, cut and made, for abdomen, back and breasts. The Spencerflex, a new support for men, will be on display. This support provides pelvic control and abdominal uplift with freedom for muscular action. It is designed as an adjunct to treatment following upper abdominal surgery. Other designs of Spencer Supports prescribed by physicians for use in the treatment of many conditions will also be exhibited.

E. R. SQUIBB & SONS, Booths 33 and 34

NUTRITIONAL DEPLETION ON STANDARD HOSPITAL DIETS: A scientific exhibit presenting new data on depletion of essential nutrients in patients on standard hospital diets; and measures suitable for the prevention of nutritional damage.

STANDARD X-RAY COMPANY, Booth 88

The Standard X-Ray Company will exhibit in booth No. 88, diagnostic x-ray apparatus, especially designed for office installation. This apparatus offers full facilities for fluoroscopy and radiography in any position and occupies the minimum amount of space. Attendants will be most pleased to explain this apparatus and answer any of your inquiries.

SUTLIFF & CASE COMPANY, INC., Booths 72 and 73

Professional representatives will be on hand as usual to greet you and discuss with you a new important product. HYPER-RU combines the therapy of potassium thiocyanate in hypertension with that of rutin for capillary fragility. Also on display will be the original preparations of thiocyanates for the treatment of arterial hypertension, and other new pharmaceutical products.

UNIVERSAL PRODUCTS CORPORATION

Of special interest is the new "Surgeons Fingalyte". You have at times wished to have a light at the end of your finger. "Fingalyte" is just that, penetrates and throws the light on and into all tissues or crevices. It is low wattage and cool for Transillumination. Will save time for many Surgeons and General Practitioners. Other feature is a headlight that weighs only two ounces, all contained in a small case, in a constant vapor sterilizer bath. The Surgeons "X-L-Lyte" will also be demonstrated. This instrument is not now, but has been in service for 15 years and over 60,000 in use, — if you don't have one, see it.

THE UPJOHN COMPANY, Booth 44

The central panel of the exhibit symbolizes that man's resistance to stress is being increased by science. The other panels show the effect on the adrenals of various stresses — infection, exercise, surgery, and anoxia. The final panel shows the relative potency of adrenal cortex sterile solution and lipo-adrenal cortex sterile solution.

U. S. VITAMIN CORPORATION, Booth 101

Full color illustrated brochure "Diagnosing Vitamin Deficiencies" together with professional samples and literature on Vi-Syneral, Vi-Syneral Vitamin Drops, Poly-B, Vi-Litron, Hypervitan, Lipo-Heplex, Dalsol, Desiver, Amiprote, Natrascorb, Rutin-Rutascorb, Methischol, Tri-Sulfanyl and others.

VARICK PHARMACAL COMPANY, INC., Booth 67

The theme of this exhibit will be the use of DIGITALINE NATIVELLE, the original digitoxin, in single dose oral digitalization. The panel will portray graphically, by means of a clock-like figure, the 3 to 6 hours required for digitalization. A miniature showcase will contain specimens of the product. Professional samples, and literature will be available.

WINTHROP-STEARNS, INC., Booth 99

WINTHROP-STEARNS INC., New York, extends a cordial invitation to visit their booth (99) where representatives will be on hand to discuss the latest pharmaceutical preparations

made by this firm. Featured will be Demerol, powerful analgesic, spasmolytic, and sedative; Neo-Synephrine with Penicillin for the treatment of sinusitus; and Tricreamalate, creamalin (aluminum hydroxide) plus magnesium trisilicate.

WYETH INCORPORATED, Booth 69

Wyeth Incorporated is exhibiting an amino acid preparation and a propionate compound jelly. Meonine (dl' methionine), an amino acid essential to normal liver function, is recommended for prevention and treatment of liver damage. Supplied in tablets of 0.5 Gm. dl-methionine, bottles of 100 and 1000; Crystalline Meonine, bottles of 50 Gm. Propion Gel, a jelly containing calcium and sodium propionate and propionic acid, is prepared for treatment of mycotic vulvovaginitis. Supplied: 95 Gm. tube, with or without applicator.

ZIMMER MANUFACTURING COMPANY, Booth 114

Zimmer Manufacturing Company will exhibit a complete line of fracture equipment. New features will be a redesigned set of bone chisels, gourges, osteotomes, periosteal elevators, retractors, etc., also new protective finishes for aluminum. You are welcome to our exhibit where you may see a complete display of Zimmer items first hand and be given a demonstration of their uses.





For

Relaxation,

Information,

Education —

Attend

YOUR Annual Meeting.

Palmer House

Chicago

May 10, 11, 12, 1948

Medical Economics

The Medical Economics Committee — Chauncey C. Maher, Chmn., 6 North Michigan Avenue, Chicago, Edwin S. Hamilton, V. Thomas Austin, Emmet B. Bay, Jay McDonald Milligan, George Halperin, Marie Wessels, Thomas C. Browning, Roland R. Cross, Milton E. Bitter, Edwin F. Hirsch, Ford Hick, Carroll C. L. Birch, Hubert L. Allen.

THE PATIENT — A HUMAN BEING

The scientific practice of medicine has made remarkable progress in the last twenty-five years. We have seen the discovery of insulin, which has helped prolong the life of the diabetic. We have seen the discovery of the sulfonamides and penicillin, and we have developed new chemical formulas and new surgical techniques that will prolong many lives.

In this progress there has developed a highly specialized personnel who are known as specialists in their respective fields in the diagnosis and treatment of diseases of the patient. It seems that in this tendency toward specialization we have forgotten at times that the patient is not just made up of so much protoplasm and so many chemical atoms, but has a mind and a soul that govern these abstract phenomena.

In the training of young men in medicine there has been an increasing tendency in our medical schools to influence them toward specialization. The standards have been raised and the scientific training so strict that by the time a young man finishes his medical course in an approved medical college he has but one goal ahead, that is to continue his training for another five years so that he can fulfill the requirements of the various American Boards, which will give him the right to call himself a specialist. This is a very laudable program, but if every one who goes to medical school today should be influenced in this way we will soon have the whole profession a highly trained group of specialists.

With this trend toward specialization we find ourselves confronted with inadequate medical care in hundreds of American communities that have been served through all the past years by the general practitioner. The family doctor has been the bulwark of early medicine and the man who has been the go-between the patient and the specialist. Who can better understand the psychosomatic influences on many of these illnesses that come to the patient other than the family doctor?

Those of us who have chosen a special field in the practice of medicine do a great deal of referred work, and in turn refer many cases to other specialists. We all realize the many pitfalls into which the patient may fall as they go from one specialist to another unless some one doctor acts as a coordinator and correlates all the findings and presents them to the patient as a complete diagnosis.

I wish to relate an experience of one of my patients who had many varied symptoms. The main symptoms were neurological but there were many symptoms of different parts of the body to be explained. This patient went to the first group and an organic neurological diagnosis was made. She consulted a second group and the third group, and all focused their attention on the organic neurological diagnosis and no one gave this patient a satisfactory explanation of the many symptoms that seemed very important to her.

I am not criticizing any group in their scientific methods of diagnosis, but I think we who are specializing fail to remember that we are dealing with a patient, a human being, with human emotions, that deserves an honest discussion and explanation of all the varied symptoms, even though they do not seem pertinent to the organic diagnosis.

A few days ago a senior medical student from

(*Continued on page* 198)

Medico-Legal Briefs

Answers to medico-legal problems of general interest submitted to the Editor will be answered in this department.

ESTABLISHING A CLINIC; CORPORATE ASPECTS

Question

"We are planning to have our clinic incorporated. Our attorney advised that to incorporate a clinic is against the policy and rulings of the American Medical Association which we did not know previously. He also stated that he believed it would be in violation of the present Illinois Medical Practice Act. Can you give us any information as to how a clinic may be established and controlled by ethical physicians operated strictly on an ethical basis, and yet not be contrary to present laws, and not violate the Principles of Medical Ethics"?

As this question involved a more thorough understanding of law, and could not be intelligently answered by the Editor and the Editorial Board, it was referred to the Bureau of Legal Medical and Legislation of the American Medical Association for the proper answer. We have permission to publish their reply.

The Answer

AMERICAN MEDICAL ASSOCIATION
Bureau of Legal Medicine and Legislation
J. W. Holloway, Jr., Director
535 North Dearborn Street
Chicago, 10
February 4, 1948

Dr. Harold M. Camp, Secretary
Illinois State Medical Society
Monmouth, Illinois

Dear Dr. Camp:

Your letter of January 31, 1948, addressed to Mr. Holloway has been referred to me for reply. You ask for a statement relative to the advisability of a clinic being incorporated.

The practice of medicine by a corporation is prohibited by law and by the Principles of Medical Ethics. For this reason, any group of practitioners should be wary of staying too far from an orthodox partnership or individual practice. Certain aspects of medical practice are of such a purely business or economic character, however, not concerned at all with the professional part of the practice, that they may be carried on more efficiently and economically through the medium of a corporate structure. For example, in a number of cases a corporation is organized which holds title to all real and personal property used by the physician. Such property and its facilities are then rented to the partnership at a rate reasonably comparable to the prevailing rate in the community. The stock of the corporation could be owned by some or all of the partners and provision made so that it could not be sold or transferred to any layman or to any physician not a member of the partnership or clinic. The income of the corporation could be used to maintain equipment and pay necessary employees and any surplus existing used either to pay dividends on stock or, preferably to subsidize research, medical education, or the like. This corporation or holding company might undertake to furnish its partnership-tenant the services of such nonprofessional assistants as nurses, technicians, stenographers, etc. The corporation might even agree to attend to the clerical needs of the partnership, such as the reception of patients and preparing and collecting the bills for services which the physicians of the

partnership had rendered, probably, to be safe, billing the patients on the group or partnership letterhead. Patients coming to the building would be patients not of the corporation — for it would not undertake to diagnose or treat through employees — but of the partnership or physician-tenants. If such a corporation is formed, its existence should be recognized in the partnership agreement under which the physicians in the clinic are practicing.

This Bureau has no objection to your using any of the material contained in this letter in your "Question and Answer" section if it will be of value to your membership.

Yours very truly,
George E. Hall (signed)

MEDICAL ECONOMICS (Continued)

one of our leading medical schools stated that a group of the senior class were planning to go into general practice because they were of the older age group due to the war service they had given. A certain group of these men will become specialists, but they should be trained first of all to be a doctor, one that will relieve human suffering and see the patient as a human being and not as a group of symptoms to be diagnosed and treated. The specialty boards should recognize the value of a few years these boys spend in studying the patient as a human being. If these principles are followed in the training of our young men we will have better doctors, better specialists and better service to the patient.

J. D. M.

The tragedy today is not that research has failed to produce a panacea for tuberculosis but with shortage of beds and good houses we are unable to apply fully the knowledge already at our disposal. Arch. S. Hutcheson, M.D., NAPT Bull., Feb., 1946.

Humanity has always shunned responsibility. Even today, though there is widespread intellectual acceptance of the concept that much disease is preventable, the emotional attitude is not much altered and illness is considered an intrusion, a misfortune due to factors beyond control of the individual. As a whole we have not yet awakened to the idea that the health of men and women is their own responsibility. Edward J. Stieglitz, M.D., A Future for Preventive Medicine, The Commonwealth Fund, 1945.

It appears obvious that we have arrived at a point in this country where the dissemination of bovine tuberculosis is no longer a matter of serious concern. H. M. O'Rear, D.V.M., Disease of the Chest, July-August, 1947.

Persistent pulmonary infiltrations are associated with histoplasmin sensitivity much more frequently than with tuberculin sensitivity among Kansas City school children. Michael L. Furcolow, M.D., Herbert L. Mantz, M.D. and Ira Lewis, Pub. Health Rep., Dec. 5, 1947.

Adult types of pulmonary tuberculosis have shown an alarming incidence among children of school age in all of the wartorn countries; tuberculosis of bone and joints has increased many times; miliary tuberculosis and tuberculous meningitis in children are now common. In every children's hospital I visited I saw ward after ward of the victims of tuberculosis. In one small country, not atypical of others, I learned that to take care of the known cases of bone tuberculosis alone among children 7,000 new hospital or sanatorium beds were needed. They had only 500 when I was there. Martha M. Eliot, M.D., Am. Jour. Pub. Health, Jan., 1948.

Correspondence

THE WOMAN'S AUXILIARY TO THE ILLINOIS STATE MEDICAL SOCIETY

1947-1948

YOUR QUESTIONS ANSWERED ABOUT A WOMAN'S AUXILIARY

Mrs. John W. Soukup, President, Chicago

1. What is the Woman's Auxiliary to the Illinois State Medical Society?

The Woman's Auxiliary to the Illinois State Medical Society is an organization of wives of members in good standing of the County Medical Societies throughout the State.

2. What are the objectives of a County Auxiliary?

a. To assist the County Medical Society in the advancement of prevention of disease.

b. To aid in securing better medical legislation.

c. To do such other supplemental work as shall be determined from time to time by the County Medical Society.

d. To endeavor by frequent meetings to secure knowledge of and to disseminate the aims and educational program of organized medicine throughout the community.

e. To function as a component unit of the Auxiliary to the Illinois State Medical Society, and through it a part of the Auxiliary to the American Medical Association, and to further the interests thereof.

f. To contribute to the Benevolence Fund.

3. What are the purposes of the County Auxiliary?

a. Through its members to explain the objectives of the medical profession to lay organizations interested in health education.

b. To assist in the entertainment at all Illinois State Medical Society Conventions.

c. To promote acquaintanceship among physicians' families and thus foster better fellowship.

4. Is there a national organization?

Yes. The American Medical Association authorized the organization of the Woman's Auxiliary to the AMA in 1922.

5. How many states joined then?

Six states were charter members.

6. How many are there now?

Forty-three states and the District of Columbia are now organized.

7. How many members has the National Auxiliary?

At present there are more than 35,000.

8. When did the Illinois State Medical Society authorize the organization of a Woman's Auxiliary?

In 1927.

9. What is the State Auxiliary membership?

In May 1947, the membership was 1,063.

10. How many counties in the state?

There are 102 counties in the state.

11. How many County Medical Societies in the state?

There are 90 County Medical Societies in the state.

12. How many counties have auxiliaries?

There are twenty counties that have organized auxiliaries.

13. What counties are these?

Adams, Bureau, Cook, Henry, Kane, Knox, Livingston, Logan, Madison, Marion, Clinton, Peoria, Rock Island, Sangamon, St. Clair, Taze-

well, Vermilion, Warren, Will and Grundy.

14. Are there members at large in counties not organized?

Yes. There are members at large in thirteen counties.

15. How does the Auxiliary assist the Medical Society in legislative work?

a. By educating its membership to a knowledge of the problems that face the medical society.

b. By communicating with their State and National legislators.

c. By presenting authentic speakers on pertinent legislative topics before local organizations.

d. By distributing material authorized by the Medical Society.

16. How does the Woman's Auxiliary assist in Public Relations?

a. By acting as a liaison group between the medical society and the public, and by developing a spirit of understanding and good fellowship between the laity and the profession.

b. By taking part in the various local health drives and community projects with permission of the Medical Society.

17. Does this Public Relations work supplement Society activity?

Yes. The work done by the Auxiliary carries with it the sanctions of the medical society, thereby allowing the Society to be included in community projects that have to do with the positive features of the Health Programs of the American Medical Association, State and County Medical Societies in which they otherwise might not be able to participate.

18. What other work does the County Auxiliary do in Public Relations?

a. Holds study groups on prepayment medical care plans.

b. Contributes to the Benevolence Fund.

c. Promotes sale of Hygeia.

d. Helps with the nurse recruitment program.

e. Arrange Health Education programs.

f. Sponsors legislative work as recommended by medical society.

19. Are Auxiliaries controlled by their County Medical Societies?

Yes. Through an Advisory Committee appointed by the President of the County Medical Society.

20. What are the functions of the Advisory Committee?

a. To act as a liaison between the Medical Society and the Auxiliary.

b. To present projects from the County Medical Society.

c. To approve programs and all work carried on by the auxiliary.

21. How is a new auxiliary organized?

a. A motion to approve the organization of an auxiliary must first be approved by the County Medical Society.

b. An interested representative physician's wife acts as organization chairman. She contacts the State Councilor of the Auxiliary and the State Organization Chairman and requests their assistance in organizing the new auxiliary.

22. How is the first meeting arranged?

The State Organization Chairman and the State Councilor of that district assist the local group with further arrangements. These depend largely on the size of the new unit. The representative physician's wife issues invitations to the wives of their members to attend a meeting or tea for the purpose of organizing an auxiliary to the medical society. It is helpful to have your State Organization Chairman and State Councilor at the very first meeting to explain the aims and purposes of an auxiliary.

23. What is the next formal step?

The local organization chairman calls for a motion to organize an auxiliary to the county medical society with those present as charter members. She then appoints a nominating committee. The new unit sets a date for their next meeting at which election of officers takes place, or elects officers at this meeting.

24. What are the dues?

Each county decides for itself. Membership dues range from $2 to $5 as voted by the membership.

25. When are the dues payable?

Dues shall be payable on or before March 1 of each year.

26. What are State Dues?

Each county forwards $1.00 per capita for each member on the roll to the State Treasurer. She, in turn, forwards 25 cents per capita for each member to the National Treasurer.

27. How does the county auxiliary use its money?

For the support of its organization, placement of Hygeia, contributions to benevolence fund and whatever they decide to sponsor.

28. How is the county represented at the State Conventions?

Each county auxiliary shall be entitled to one delegate for each twenty-five members or major fraction thereof.

29. Is the county auxiliary represented at the State Board meetings?

Yes. Each county president and county president-elect are expected to attend the fall board meeting. She reports accomplishments and problems of her county.

30. Do State and National Auxiliaries maintain contact with the county auxiliary?

Yes.

a. Through the quarterly Bulletin of the Woman's Auxiliary to the American Medical Association.

b. Material is prepared and distributed by each state chairman for the guidance of local chairmen.

c. By attendance at conventions and by personal visits of the president and state officers.

31. What does the physician's wife benefit from membership in the Auxiliary?

a. She benefits from taking her part to the promotion of harmony and good fellowship among the physicians' families in her community.

b. She benefits from assuming her responsibility in joining with the other physicians' wives in the United States in an organization assisting the medical profession in the solution of the problems confronting them.

c. She benefits in that her name on the roster and her financial support works for the aims and purposes of the Woman's Auxiliary to the American Medical Association throughout the entire country.

FULTON OF YALE TO GIVE D. J. DAVIS LECTURE

You are cordially invited to attend the Fifth Annual D. J. Davis Lecture on Medical History, "The position of William Withering in the history of Scientific Medicine," by John F. Fulton, M.D., Sterling Professor of Physiology, Yale University School of Medicine, at one o'clock, April 28, 1948, Room 221, University of Illinois College of Medicine, 1853 West Polk Street, Chicago, Illinois.

This lecture series was etablished by the associates and friends of Dr. Davis upon his retirement as Dean of the College of Medicine in 1943. Although better known for his outstanding work in bacteriology, public health and medical education, Dr. Davis is an enthusiastic student of the history of medicine and during his thirty years of service at the University of Illinois he did much to promote interest and research in this field. As a fitting tribute to him and in order that the work he began may be continued, this lectureship in medical history was established in his honor.

THE D. J. DAVIS LECTURESHIP

Inaugural Lecture, 1943: "A Prelude to Medical History" — J. Christian Bay, Litt. D., M.S., Librarian, The John Crerar Library.

Lecture; 1944: "Medical Zoology in America's First Century" — Henry B. Ward, Ph.D., D.Sc., LL.D., Professor of Zoology, *Emeritus*, University of Illinois.

Lecture, 1945: "Medical Practice Before The Hard Road" — Carl E. Black, A.M., M.D.

Lecture, 1947: "Wisconsin Men In Chicago Medicine" — William S. Middleton, M.D., Dean, University of Wisconsin Medical School.

AMERICAN COLLEGE OF SURGEONS APPROVES USE OF NURSE ANESTHETISTS

The Board of Regents of the American College of Surgeons, at a meeting on February 22, adopted a resolution commending the services of nurses who have had special training in the administration of anesthesia and recommending the continuance of training courses in this field for nurses. The resolution reads as follows:

The American College of Surgeons regards with deep concern the actions of some physician anesthesiologists in giving the impression to the laity in the public press that it is unsafe for experienced anesthetists to conduct surgical anesthesia. While it supports the increasing tendency of having physician anesthesiologists in charge of surgical anesthesia, it deplores at this time any propaganda for the elimination of

the trained nurse anesthetist. On the contrary, the American College of Surgeons is of the opinion that, in view of the inadequacy in number of the physician anesthesiologists and in view of the splendid record of achievement of the nurse anesthetists, institutions engaged in the training of nurses for this purpose should be encouraged to continue their programs.

THE AMERICAN SOCIETY FOR THE STUDY OF STERILITY

The American Society for the Study of Sterility is holding its Fourth Annual National Session on June 21 and 22, 1948. at the Congress Hotel in Chicago. The two-day program will be divided into a special series of panel discussions on male infertility, with papers to be read on female and miscellaneous infertility aspects on the second day.

The chairman this year is Professor Edwin C. Robertson, Chairman of the Department of Obstetrics and Gynecology of Queens College, Ontario, Canada.

Additional information may be obtained from the secretary, Dr. John O. Haman, 490 Post Street, San Francisco 2. California.

THE DELTA GAMMA FRATERNITY PROJECT SIGHT CONSERVATION AND AID TO THE BLIND

The Delta Gamma Fraternity has a $1000 annual fund, from which smaller scholarship awards are available for preparation of those intending to become (1) orthoptic technicians, (2) teachers of partially seeing children, or (3) specialists for blind preschool children. Anyone wishing to specialize in one of these fields may be eligible for assistance, the amount in each case to be determined by the particular need and costs involved. If you want to enroll for training in one of these fields, apply for a scholarship to Mrs. Richard P. Miller, 39 West Jefferson Road, Pittsford, N. Y.

Candidates are selected with the advice of a professional committee: Chairman, LeGrand H. Hardy, M.D.. of the American Orthoptic Council; Mrs. Virginia Smith Boyce, Administrative Assistant, National Society for the Prevention of Blindness; Miss Ruth E. Lewis, Professor of Social Work, George Warren Brown School of Social Work, Washington University; Dr. Berthold Lowenfeld, Director of Educational Research, American Foundation for the Blind; Miss Ruth B. McCoy, Assistant Director, New York State Commission for the Blind; and Lillian Ray Titcomb, M.D., President of Executive Committee, Nursery School for Visually Handicapped, Los Angeles.

GASTROENTEROLOGISTS TO MEET IN NEW YORK

The National Gastroenterological Association will hold its Thirteenth Scientific Session at the Hotel Pennsylvania in New York City on June 7-10, 1948.

In response to popular request the program this year will again for the most part consist of Symposia and there will be one Panel Discussion.

The program for the first three days will be at the Hotel Pennsylvania and will consist of Symposia on Gastroduodenal Ulcer; Ulcerative Colitis; Jaundice and Metabolism, Nutrition and Allergy. The Panel Discussion which will be followed by a "question and answer" period will cover the topics of Diabetic, Tubercular, Psychosomatic and Cardiac Manifestations in Gastrointestinal Diseases.

The fourth day of the session will be devoted to a clinical day at cooperating hospitals in New York City.

At the Annual Banquet to be held on Tuesday evening, June 8, 1948, the winner of the National Gastroenterological Association's 1948 Cash Prize Award Contest for the best unpublished contribution on Gastroenterology or an allied subject, will receive the prize of $100.00 and a Certificate of Merit.

Further details and a copy of the program may be obtained by writing to the Secretary, National Gastroenterological Association, 1819 Broadway. New York 23, New York.

Original Articles

THE SURGICAL TREATMENT OF PSYCHOSES

Erich Liebert, M.D.
Loyal Davis, M.D.
Chicago

The treatment of the mentally ill by surgical methods has been attempted for many years. Most of these surgical procedures were designed chiefly to remove sources of focal infections, but except for isolated cases these surgical procedures have been disregarded in the modern therapy of psychoses. A more rational approach seems to have been afforded by a *neuro*surgical method described variously as psychosurgery, frontal lobotomy, or leucotomy. The rational of this treatment is to interrupt the thalamo-frontal fibers, to remove the patient's anxiety and fears by blunting of his affect, and to effect a social adjustment if severe self-accusations, phobias, and obsessions had led to an invalidism of the person. Severe depressions are thought to be amenable to this form of surgical therapy. This is especially true if severe anxiety is present leading to acts of self-destruction or to destructive acts against other persons.

Moniz was the first to suggest such an operation in mentally ill persons, although it had been known before that changes of personality, with lack of initiative, loss of inhibition and a reduction of fear could be observed in patients who had an involvement of the frontal lobes or who had the frontal lobes removed surgically because of a tumor. Since Moniz other neurosurgeons have used this method of psychosurgery on patients with psychiatric disorders and during the last few years many papers have appeared describing the results of the operation.

Freeman and Watts in this country reported on more than 400 operated cases of various mental disorders. A summary from various clinics in Great Britain reported over 1000 such operations. In comparison with such large number of cases the results reported here are on a rather small number of cases. However, we believe this report to be of value because most of the patients who were operated upon have been under our observation for long periods of time, in some cases over 20 years, and all have been continuously hospitalized for several years. All of the patients had undergone repeated shock treatments and other therapies without any improvement in their mental status.

It is obvious that a severe operative procedure like prefrontal lobotomy in which a part of the brain is being destroyed or disconnected from the rest of the nervous system should be undertaken only if all other forms of treatment which appear less destructive and less incapacitating have failed.

We, therefore, carefully selected the patients used in this study. On all of the patients metrazol, electric convulsion, and insulin shock treatments had been tried and had failed and an improvement could not be expected by routine methods of therapy. All patients were severe behavior problems in the hospital, many seriously threatening their own lives or the lives of other patients on the ward.

Before surgery was undertaken the relatives were asked for their consent. They were told

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of possible consequences of the operation and no promise of any results were made, although a hope was expressed that a change in patient's behavior might occur.

45 patients were operated upon by four different neurosurgeons. Six patients died as a result of this surgery due to intracranial hemorrhage, and one patient developed a generalized meningitis. Dr. Perret of Dr. Loyal Davis' service operated on 29 patients. He had three deaths.

Material: Patients suffering from various mental disorders were operated upon. Schizophrenics comprised more than half of our subjects because of the overwhelming number of deteriorated schizophrenics in a state hospital.

As mentioned above we were rather hesitant to advise the operation in any but the most urgent cases. After everything else had failed we felt justified in suggesting an operative procedure. We selected those patients who had been able to make an adjustment in life before their mental illness, but who were now dangerously suicidal, homicidal, or in a constant state of excitement. Some of our patients classified as psychoneurosis had obsessions which were so severe that they completely incapacitated the patient. All patients had been hospitalized and treated for several years.

An evaluation of the improvement of a patient who has been in a hospital for many years is obviously quite difficult. We were strict in our evaluation and unless a striking change in behavior was seen, the patient was classified as unimproved. We considered improved only those patients who could be discharged, or who are able or will soon be able to do some useful, unsupervised work in the institution such as working in the laundry, helping in the dining room, or performing several hours' duty in the office. Because of the severely disturbed patients chosen for this study such an improvement can really be classified as dramatic.

For instance, P. V., age 23, diagnosed as dementia praecox, catatonic type, was a constant serious behavior problem for many years in the institution. He received insulin and electric shock treatment repeatedly without any signs of improvement. Consistently he refused to eat. On numerous occasions he tried to commit suicide. A lobotomy was performed in March, 1944, without any beneficial effect at first. After about one year some improvement could be noted. He took some interest in the surroundings, started to talk to other patients. Gradually he continued to improve and about 18 months following lobotomy he started to work in the dining room. He now has some insight into the seriousness of his former condition and talks about it quite rationally. If the improvement continues he should be discharged at an early date.

The question may be raised whether a change in behavior 18 months following the operation may still be considered the result of the surgery. However, we have seen a steady progressive improvement in the condition of several other patients over several years, and the process of reeducation, behavioral adjustment, and relearning may, and usually does, take a long time. In some cases the beneficial effects of psychosurgery appear more dramatic and sudden.

For instance, O. H., a female patient, 29 years of age, who had been ill continously for 5 years and had been very combative and unmangeable, screaming loudly at night, being always hyperactive, refusing to rest, and becoming completely exhausted. Soon after surgery the patient became cooperative, quiet, and friendly, could be conditionally discharged to her husband two months after lobotomy. At first she did not take much interest in her home, had to be told what to do, or otherwise would just sit around, expressing no emotions. About 6 months later she was described as taking more interest in her home, taking good care of the children, dressing them well and seeing that they went to school on time. At the present time (two years following surgery) her husband describes her as perfectly "normal," and "better than she ever had been." She is taking full charge of her household and of money matters. She expressed normal emotions when her children were ill, stayed up day and night to care for them, without, however, any overdue concern.

In general the results of the operative procedure in our cases can be seen from the following table. Table 1 shows the improvement we had in the various psychoses: 25 out of 38 patients could be considered as improved, 12 of these patients were discharged from the hospital after years of residence, while 13 patients were considered as unimproved.

TABLE 1

Diagnosis	Total Number	Un-improved	Improved	Dis-charged
Dementia praecox, catatonic	11	3	8	4
Dementia praecox, hebephrenic	5	4	1	1
Dementia praecox, paranoid	4	2	2	0
Dementia praecox, undetermined	5	1	4	1
Manic depressive, manic	3	1	2	1
Manic depressive, mixed	2	0	2	1
Manic depressive, depressed	1	1	0	0
Organic brain disease	1	0	1	0
Psychoneurosis	3	0	3	2
Mental deficiency	1	1	0	0
Involutional psychosis, paranoid	2	0	2	2
TOTAL	38	13	25	12

The next table shows the improvement according to the duration of the psychoses. This factor of duration of the psychosis has to be considered because it is known that the longer the duration of the psychosis, the less probability there is for a remission. The same holds true for psychosurgery, while eight out of twelve patients with a duration of a psychosis of 5 years or less could be discharged, only 4 out of 26 patients with a longer duration were able to leave the hospital.

TABLE 2

Duration of Psychoses	Total Cases	Un-improved	Improved	Dis-charged
1 year	1	0	1	0
2 years	4	0	4	4
2 to 5 years	7	2	5	4
5 to 10 years	10	4	6	2
10 to 15 years	4	2	2	0
Over 15 years	11	4	7	2
Unknown	1	1	0	0
TOTAL	38	13	25	12

Some patients show a marked improvement only in their behavior, while their ideation, paranoid ideas, and hallucinatory experiences remain unchanged. They do not react as violently to these ideas, but they are still manifestly psychotic. These patients were classified as unimproved, although the family and the ward personnel are quite enthusiastic with the results of the operation. 30 patients out of our group of 38 severely mentally ill persons most of them with extreme behavior disorders showed an improvement in their behavior. Of these, 21 can now perform useful work. Four patients classified as improved are not working as yet but are either expected to do so soon or are being kept from work because of some physical handicap. Ideation improved only in 16 patients. Some of them still have their hallucinatory experiences or their paranoid ideas. Although these patients are still mentally ill, their behavior and their mental illness does not preclude a satisfactory adjustment at home.

One of our patients had the idea that she had a severe tuberculosis. She would not allow anybody to come near her, at night she sat in a corner refusing to go to bed, screamed loudly when given her meals and for months she had to be tube fed. After the lobotomy the idea of having tuberculosis still persists, but the patient is no longer a problem in management. Her idea has lost its emotional value. In general she is friendly and she does not mention her imaginary illness. She is now at home and is able to do her housework.

Following the surgical procedure the patients usually show a marked let down in energy. They are quiet, remain in bed and do not like to be disturbed. This apathy slowly disappears in those patients who improve and the patients start to answer questions, then talk spontaneously and begin to take an interest in their surroundings. They start to talk to their relatives, ask them about family affairs and they show an interest in newspapers and magazines, interests our patients had not shown for years. However, some of our patients remained in a rather passive mood. Their initiative is still lacking and they are content to sit around, to take their meals and to sleep. Passively they cooperate, they are not combative as they were before surgery, and they do not injure themselves by breaking windows as some of our patients had done almost daily for years. Their drives, their interests, and their initiative are at a minimum. In about half of our patients their normal interest, their emotional tone have not returned as yet. Since most of these patients are still slowly improving we expect in time a change in this sphere of behavior.

Some undesirable after-effects of the operation will have to be mentioned. Six of our patients developed generalized epileptic convulsions several months following surgery. It occurred in all age groups, and manic as well as schizophrenic patients suffer from such seizures. These seizures can easily be checked with anticonvulsive drugs, but such a development is obviously an undesired sequela of the operation.

Another very undesirable effect is rectal and bladder incontinence. This behavior starts shortly following the operation and persists for 2 weeks to 3 months with gradual improvement. In four cases bladder incontinence has, however, persisted and is obviously an unwanted postoperative symptom which one has to consider in advising psychosurgery.

We have seen in some patients astonishingly good results after pre-frontal lobotomy. The number of improvements, however, do not compare too favorably with those obtained by other authors. This, in our opinion, is due to the kind of patients operated upon. As pointed out our series consisted of patients who were recalcitrant to all other forms of therapy and who had been ill over a long period of time. We are, therefore, not too discouraged about our results. On the contrary, judging by the kind of patients operated upon we consider them rather encouraging. Because of the great number of undesirable after-effects that may occur, such as bladder incontinence, epileptic convulsions, and the loss of initiative in some cases, one should be cautious in recommending this procedure.

Patients who are overactive, destructive, and present a severe problem in management have a good chance of improvement, even for final discharge from the hospital, irrespective of the fact that their psychosis was present for several years. However, our charts show that patients who have been ill less than 5 years have a better prognosis than those who have been sick over a longer period of time.

Patients who have improved or even recovered from their mental illness cannot be assured that a relapse may not occur. One patient had to be treated with electric shock because of a recurrence of a depression. This depression was not as severe as it had been before surgery, and while this patient had severe suicidal tendencies and had made numerous suicidal attempts before surgery she now denied any such thoughts. A short course of electric shock treatment restored this patient rapidly to her normal level.

SUMMARY AND CONCLUSIONS

The results of 38 cases with prefrontal lobotomy were described. Out of this number 25 improved, and of the improved patients 12 were discharged from the institution. Thirteen patients remained unimproved. The rather low number of improvements is probably due to the patients selected, all of them having been ill for many years and having constituted a severe behavior problem in a mental institution. Untoward effects of the operation as bladder incontinence, epileptic seizures, and lack of initiative following the operation must be expected in some cases.

THE INFLUENCE OF INSULIN ON DEGENERATIVE CHANGES IN DIABETES MELLITUS

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CHICAGO

There is no agreement as to the role which insulin plays in the prevention of degenerative changes in diabetes.

This paper reviews the literature on the subject, and discusses the results of autopsies on diabetic patients who have died at St. Luke's Hospital between the years 1933 and 1946. The year 1933 was selected because it was believed that ten years use of insulin might suffice to indicate any abatement in degenerative changes.

Ricketts[1] stated that this is the most important problem in clinical diabetes today and, as yet, information is too scanty to permit a satisfactory answer. Cecil[2] said that arteriosclerosis is increasingly frequent in diabetics after the third decade of life and is found regularly in middle-aged and elderly subjects. However, the mildest diabetics often have marked arteriosclerosis while in some severe diabetics the arteriosclerosis may be absent or insignificant.

Naide[3] reported in 1945 on the peripheral vascular findings in 89 cases of diabetes as observed for 10 or more years, and his results are given in the 3 following tables.

Associate in Medicine — Northwestern University Medical School.

TABLE 1

Age Group	No of Patients	Symptoms of arteriosclerotic P.V.D. in leg. None	Slight	Mod.	Severe	Grade of arteriosclerotic P.V.D. None	Slight	Mod.	Severe
10-19	4	4							
20-29	10	10				4			
30-39	8	8				7	1		
40-49	10	8	2			7	1	1	
50-59	27	21	2	3	1	8	7	2	2
60-69	25	19	1	5		17	9	2	
70-79	5	1	1	1	1	13	3	1	1
		71	6		2		21		3
Females	67								
Males	22								

The relationship between the degree of arteriosclerotic peripheral vascular disease and the severity of the diabetes is shown in Table 2.

TABLE 2

Degree of severity of arteriosclerotic P.V.D.	No. of Patients	No Insulin	Up to 25 u.	Up to 50 u.	Above 50 u.
None	56	6	18	12	20
Slight	21	7	7	3	4
Moderate	9	1	3	5	
Severe	3	1	3	5	

Relationship between degree of arteriosclerotic peripheral vascular disease and control of diabetes in terms of average height of blood sugar, according to Naide[3] is shown in Table 3.

TABLE 3

Arteriosclerosis Degree of Severity	No. of Patients	140 mg Blood sugar or less	140 to 180	180 to 250	Over 250
Slight	21	4	7	6	4
Moderate	9	1	2	5	1
Severe	3		3		
Total	33	5	12	11	5
No arteriosclerosis	56	17	25	15	4

This data would indicate that the severity of the diabetes did not affect the degree of arteriosclerosis. The three severe vascular cases were all milder diabetes.

In 33 of the 89 patients, 37% had evidence of arterial occlusive disease. In 21 of these the arterial disease was slight, in 9 moderate and in 3 severe. Although in the entire group the number of female patients was only three times the number of males (67 females — 75%) 22 males (25%) there were more than 5 times as many female patients in the group with peripheral arteriosclerotic disease, 28 females (42%), 5 males (22%), — on the other hand, in a representative series of arteriosclerotic patients without diabetes, in the peripheral vascular clinic only about 14% were females. The diabetes state, therefore, appears to have played a part in the production of arteriosclerosis, particularly in the female patients of this group. It would seem then that in Naide's study, a constant and adequate control of the diabetic with insulin and relatively high carbohydrate diet would tend to prevent premature arteriosclerosis. Arteriosclerosis when it does occur in the well-controlled diabetic, does so at the age when it is also found in non-diabetics.

Summary of Naide's[3] Group. — 89 patients with diabetes from 10 to 25 years under reasonably good treatment were studied from the standpoint of arteriosclerotic disease in the legs. Three patients, 11% of those under 50 years of age and 30, 34% of those over 50 had evidence of arteriosclerosis.

Premature arteriosclerosis below 50 years of age was, therefore, not common. The severity of the diabetics did not affect the incidence of arteriosclerosis. The adequately controlled patients had a smaller incidence of arterial disease. Of the females 42% had arteriosclerosic disease as compared with 23% of the males.

Herzstein and Weinrath[4] in 1945 also studied the peripheral vascular disease in diabetes. A group of 249 male diabetic patients were used and the results are given in the following 4 tables.

Herzstein & Weinrath[4]

TABLE 4

Observation on 249 male patients.

Age Group	Total number of Patients		PVD Absent		PVD Present
Under 30	9	7	74%	2	26%
31 to 40	10	7	74%	3	26%
41 to 50	32	21	66%	11	34%
51 to 60	73	42	58%	31	42%
Over 61	125	46	37%	79	63%
Total	249	123	49%	126	51%

TABLE 5

Peripheral Vascular Disease in relation to duration of diabetes

Years Duration	No. of Patients		PVD Absent		PVD Present
Under 3	66	39	59%	27	41%
4 to 5	28	16	57%	12	43%
6 to 10	70	29	41%	41	59%
11 or more	84	36	43%	48	57%

TABLE 6

Severity of Diabetes and Peripheral Vascular Disease

Severity of Disease	Total No. of Patients		PVD Absent		PVD Present
Mild	137	63	46%	74	54%
Moderate	82	37	45%	45	55%
Severe	29	20	69%	9	31%

TABLE 7

Control of Diabetes and Peripheral Vascular Disease

Control	Total No. of Patients		PVD Absent		PVD Present
Good	155	77	50%	78	50%
Fair	48	19	40%	29	60%
Poor	42	28	67%	14	33%

Herzstein and Weinrath concluded that there is an apparently selective and frequently premature sclerosis which occurs in the peripheral vessels of the lower extremities in diabetic patients. The authors believe a metabolic factor may be the cause of the increase in peripheral vascular disease because of the presence of cholesterol deposit in the arteriosclerotic lesion and the hyper-cholesterolemia of patients with neglected or poorly controlled diabetes. In Herzstein and Weinrath's 249 male diabetics 51% showed evidence of peripheral vascular disease. Peripheral vascular disease was found in one-fourth of the patients under 40 years of age. It was found in greater proportion in patients with long standing diabetes, but as many as two-fifths of those with less than three years duration had some peripheral vascular disease. Insulin did not seem to prevent the occurrence nor did adequate control of the diabetes seem to influence the occurrence.

Boyd et al[5] concludes that the evidence presented supports the premise that degenerative sequela of diabetes mellitus represents late results of compromise levels of diabetic control, that they can be anticipated in the patient whose regimen of diabetic control or of diet falls appreciably short of physiologic levels and that they can be prevented through the maintenance of suitable standards of management.

Dolger[6] believed that the duration of diabetes is the most important factor in the development of degenerative changes rather than the method of therapy.. He found evidence of retinal hemorrhage in 200 patients regularly examined within a period of twenty-five years duration of diabetes mellitus. Fifty per cent of the patients studied by him exhibited hypertension and albuminuria at the time of earliest retinal hemorrhage. He is of the opinion that present day treatment of diabetes has failed to stop the progress of degenerative vascular changes which he regards an associated phenomenon of the disease and not a complication.

Dolger[6]

TABLE 8

Relation of Diabetic Control of Vascular Damage in Fifty-five Juvenile Patients

Diabetic Control	No. of Patients	Average Duration of Diabetes Yrs.	Patients with hypertension	Patients with albuminuria	Patients with vascular calcification	Patients subsequently blind
Excellent	20	13.0	10	6	2	1
Fair	18	10.4	6	7	2	2
Poor	17	12.4	7	11	2	2

Laipply, T. C. et al[7] reported 63.7% of their diabetic patients had intercapillary glomerulosclerosis while hyalinization of the Islets of Langerhans was found in 63.1%. On the other hand glomerular lesions occurred only in 2.4% of non-diabetics while slight hyalinization of the pancreatic Islets was present in 13%. This would indicate that intercapillary glomerulosclerosis

TABLE 9
The Development of Retinopathy in Relation to the use of Insulin

Age of Onset of Diabetes	Treatment	No. of Patients	Average duration of diabetes at earliest retinopathy Yrs.	Subsequent progression to blindness
30-39	Diet alone	12	12.0	3
	Insulin	33	13.5	3
	Total	45	13.0	6
40-49	Diet alone	17	8.3	6
	Insulin	62	10.5	7
	Total	79	10.0	13

was a more specific lesion in diabetics than hyalinization of the Islets of Langerhans and possibly should be regarded as etiologically significant.

From 1933 to 1946, thirty-two patients with a diagnosis of diabetes were autopsied at St. Luke's Hospital. Thirteen were males and 19 females. The age varied between 15 and 80 years. Insulin had been used in 13 cases but in adequate quantity in only 10 cases.

In the 32 cases the complicating factors were as follows:

General arteriosclerosis 24
Sclerosis of aorta 17
Coronary sclerosis 12
Cerebral sclerosis 6
Gangerene 4
Cyst of pancreas 4
Lues 1
Kidney Disease (nephrosclerosis, ... 3

In the 10 patients who received adequate insulin therapy —

Arteriosclerosis was present in 5
Fatty changes in 3
Cyst of pancreas in 1
Nephrosclerosis 1

A summary of the pertinent findings in the 10 autopsies of those patients who had received sufficient insulin is as follows:

Insulin in sufficient amount:

Autopsy 67, 1934: Female, age 69, fibrous and calcified sclerosis of aorta, splenic artery, right and left renal artery. Took insulin past 8 years.

Autopsy 28, 1938: Female, 44 years. Diabetes 12 years. Fatty changes of root arch and abdominal portion of aorta, common iliac and renal arteries, coronary arteries and vessels of circle of Willis, senile nephrosclerosis.

Autopsy 141, 1939: Male — 73. Calcified senile sclerosis and fatty changes of aorta and main branches and coronary arteries.

Autopsy 142, 1939: Female, 57 — old fibrous encapsulated cyst of pancreas — senile sclerosis and fatty changes of aorta and main branches and coronary arteries — known diabetes since 1925. Insulin since 1933.

Autopsy 63, 1940: Female — 80. Marked constricting atherosclerosis and calcification of coronary arteries, senile sclerosis and fatty changes of lining of aorta. Daily insulin, 40 units.

Autopsy 145, 1940: Male — age 52. Chronic indurative inflammation and encapsulated necrosis of pancreas. Slight senile atherosclerosis of aorta and coronary arteries. (In 1934 patient had a chole cystectomy. Surgeons observed an indurated panicreas.

Autopsy 272, 1944: Female — age 79. Atherosclerosis of coronary arteries, fibrous induration and atrophy of tail of portion of pancreas.

Autopsy 161, 1946: Male — age 26. Nephroschlerosis marked, known diabetes 17 years. General anasarca, edema of brain, hydropericardium atrophy of pancreas, fatty liver.

Autopsy 199, 1946: Female — age 68. Molded blood clot emboli of the right ventricle, marked cloudy swelling and retrogressive changes of the myocardium, hyperemia of the liver, spleen, large and small bowel, urinary bladder, trachea and bronchi; marked edema of the brain, slight atherosclerosis and calcification of the aorta and its main branches, atherosclerotic stenosis and calcification of the coronary arteries; chronic fibrous pancreatitis.

Autopsy 202, 1946: Female — age 70. Insulin since 1936, cirrhosis (Laennec) of the liver; nephrosclerosis of the kidneys, atherosclerosis of the aorta and its main branches; chronic fibrous pancreatitis.

CONCLUSIONS

The conclusion follows that although insulin may be used to control the glycemia in diabetes mellitus its use does not check the development of degenerative lesions and I believe we must consider these changes as an[8] inherent weakness, as believed by some or at least as an[9] associated concomitant of the disease. The etiology of

diabetes is still unknown and it would appear that we must pay more attention to the early degenerative changes in this disease, that is the albuminuria, moderate hypertension and beginning retinitis rather than the development of arteriosclerosis in the extremities if we are to prolong the life of diabetics and protect them against complications. At the present time little is done except attempting to control the blood sugar through the use of diet and insulin.

More information is desirable as to the need for additional insulin in the diabetic when infection is present and why do some diabetics become so resistant to the action of insulin that enormous quantities must be administered?

More study must be given the accelerated degenerative processes so that the diabetic may have some protection if we are to treat diabetes in a thorough manner. At the present time we have no therapy for these degenerative processes. As has been said[5], "maintenance of life is not sufficient in itself as a goal in the treatment of diabetes mellitus."

30 North Michigan Avenue.

I desire to express my appreciation for aid in the preparation of this paper to Dr. Edwin F. Hirsch and the Pathological Department of St. Luke's Hospital, Chicago, Illinois.

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MATERNAL DEATH STUDY

A Plea for Instituting an Illinois State-Wide Program

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SPRINGFIELD

Lessening the hazards of childbirth and the resultant loss of life is the deep concern of the medical profession, the lay public, and the hospitals. Among the measures for effecting a reduction of these dangers and these maternal deaths, the education of the profession is paramount. When physicians are better informed, there follows a more enlightened lay public, and an improvement in hospital facilities, equipment and procedures.

The Illinois Department of Public Health has always maintained an intense interest in programs for promoting education in health matters. In the field of obstetric care, acting through the Division of Maternal and Child Health the Department tabulates data from hospitals dealing with the number of mothers and infants cared for, the operative procedures employed, the incidence and types of complications, the frequency of abortions and ectopic gestations, and the number and causes of stillbirths, and neonatal and maternal deaths. From this considerable fund of pertinent information, the Department conducts an annual audit for each hospital, for each county, for each group of hospitals with a comparable number of births, and for the state as a unit. Each year the Department sends to each hospital a copy of its individual tabulation together with the average for institutions in its birth group and the entire state average. In this manner the hospitals are kept informed as to the quality of their maternity service, and many of them have come to use this material as the basis of staff discussion and medical audit.

The Division is convinced of the instructive value of this particular activity. But it desires to extend its educational program and to make it more effective and more far-reaching. It has resolved, after long, serious, and careful deliberation that a definite forward step in achieving this objective is the prompt and complete study of each maternal death by competently trained

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and experienced obstetricians, and the presentation of an impartial analysis of the findings.

Generally speaking, available data on maternal mortality concern themselves with statistical summaries on local, state, or national levels. These reports convey interest for purposes of comparison and of indicating trends in various areas and in different periods of time; but from the basic and immediate educational viewpoint they do not possess high value. For intrinsic worth, more permanent effect, and the acquisition of broader knowledge by the profession, it is essential that a careful survey be made of all details involving the ante, intra and postpartum course and management of each pregnant woman who died. This should be followed by a scientific and understanding study to determine the cause of death, both primary and contributing, its preventability or non-preventability, and the assignment of responsibility. Only through such conscientious appraisal can facts be gathered for improvement in maternal care, and through the adequate dissemination of this information to the profession can there result a diminution in the maternal death rate.

For the past fifteen years, investigations and appraisals of maternal deaths have been carried on in the larger cities such as Philadelphia, New York, Chicago, and Cleveland; more recently, smaller communities also have undertaken these surveys. In each instance, there has been reported a keener appreciation of obstetric problems, a greater alertness on the part of the practitioner, and a marked reduction in mortality rates. The results achieved have been even more widespread, significant and valuable when these study groups were not limited to a local area, but embraced a whole state.

Cognizant of the value of study of the factors involved in maternal mortality and interested in the development of such a survey on a state-wide basis,* the Division sought information, in the summer of 1945, from state health departments as to what was being done in this field of investigation in their respective states. Inquiry was made as to the following data:

1. Is there an investigation of maternal deaths in your state?

2. If so, what agencies carry forward this program?

3. What personnel is assigned to the investigation?

4. Are the reports analyzed and how are these analyses used?

Questionnaires were sent to each of the other 47 states, the District of Columbia, and the territories of Alaska, Hawaii, and Puerto Rico. To the 51 letters, 50 responses were received. In evaluating the replies, it must be emphasized that the inquiry was conducted while World War II, still raging, was responsible for a harassed civilian medical profession, transportation difficulties, and health departments handicapped by shortage of trained personnel and burdened by the load of handling the vast EMIC program. In spite of these hardships, 34 states (68 per cent) answered they either are making such studies at present or did so in the recent past. Eighteen states indicated that investigations are being made in "some" to "all" maternal deaths; 16 states formerly conducted such investigations, and of these 9 are planning to resume their studies when the war emergencies are over; 6 contemplate the initiation of such surveys, and 2 expressed interest in the project and regret at their failure to participate in studies of this nature; only 8 gave an unqualified negative answer.

Noteworthy are the comments by some of the states as a result of their experience in this program: "focused attention of the profession on the problem of maternal deaths and was instrumental in markedly reducing such mortality"; "considerable usefulness for postgraduate education"; "investigation of every maternal death is advisable"; "improves maternity service"; "valuable contribution"; "greatly valued". Particularly significant are the statements that "more thorough study" is planned for the future.

With reference to the agencies that were or are engaged in this program, 18 of the 34 states answered that the state health department, through its division of maternal and child hygiene, worked in cooperation with the state medical society (in one instance with a large local obstetric society); in 14 states the state health department alone assumed charge, and in the remaining 2 the medical society undertook the study.

*Exclusive of Chicago where the Subcommittee on Maternal Mortality of the Joint Maternal Welfare Committee of Cook County has been actively engaged in such study since 1938.

As to the personnel assigned to investigate the maternal deaths: in 13 states this was or is done by a qualified obstetrician, either from the division of maternal and child hygiene (8), from the obstetric society (3), or from the advisory committee of the division (2); a child hygiene physician has the assignment in one state; a county health officer in 3 states; the director of the division in 2 states, and clerks of the division in 2 states. In 13 instances the information is requested on questionnaires sent by mail to the attending physician. It is of interest to note that 2 states discontinued the study because a qualified obstetric consultant was not available, and one reply recommends that the interview be made by a diplomate of the American Board of Obstetrics and Gynecology. One state formerly mailed a questionnaire, found it unsatisfactory, and changed to personal interviews.

of mothers and infants. Annually, since 1937, the committee has been recommending at its meetings, and through the Illinois Medical Journal, the appointment by each county medical society of a maternal welfare committee whose duties, among others, should be to "investigate maternal, fetal and early infant deaths for constructive study in reducing mortality" and to arrange for "an adequate number of programs of maternal welfare before local society and hospital groups". Unfortunately, as the years have passed there has been no perceptible progress in effecting these recommendations.

That there is need for maternal death investigation in Illinois is evidenced by the fact that in the four year period of 1943 through 1946 there were 527 obstetric deaths in hospitals of the state, excluding Chicago. The following table shows the number of counties involved and the number of deaths for each of these four years:

	1943		1944		1945		1946	
	Number of		Number of		Number of		Number of	
	Counties	*Deaths*	*Cos.*	*Deaths*	*Cos.*	*Deaths*	*Cos.*	*Deaths*
Counties with 1 mat. death	21	21	17	17	21	21	14	14
Counties with 2 mat. deaths	16	32	9	18	4	8	9	18
Counties with 3 mat. deaths	3	9	8	24	7	21	7	21
Counties with 4 mat. deaths	7	28	4	16	6	24	4	16
Counties with 5 mat. deaths	1	5	1	5	4	20	3	15
Counties with 6 mat. deaths	2	12	1	6	0	0	0	0
Counties with 7 mat. deaths	1	7	2	14	1	7	1	7
Counties with 8 mat. deaths	2	16	1	8	1	8	1	8
Cook Co. excluding Chicago	1	31	1	21	1	11	1	18
	54	161	44	129	45	120	40	117

Of the 34 replies that indicated that investigations were or are pursued, all but one also showed that analyses were made of the findings by representatives of the cooperating agencies. The final reports were submitted to and studied by 21 state or county medical societies, and in 9 of these instances the results of the studies were published in the state medical journal. The most recent and favorably received presentations are those on "Minnesota Maternal Study" by the Maternity Mortality Committee of the Committee on Maternal Health of the Minnesota State Medical Association, published in Minnesota Medicine, June, July, August, and September 1944, and in August 1945.

The Illinois State Medical Society through its Committee on Maternal Welfare has long been aware of the need and value of study of deaths

It is noted that the total number of maternal deaths has grown smaller each year during the four-year period. But even though there be a still further decrease, the urgency of a thorough review of each maternal death is nonetheless important. The loss of even one mother is tragic and its occurrence should not pass by without reflection and analysis of all associated conditions. Only a very small number of the larger hospitals have fairly well organized staffs which make maternal deaths the topic of medical conference and discussion. Yet even in some of these institutions the subject does not receive the scientifically thorough approach it so truly deserves. In the vast majority of hospitals, a maternal death, while momentarily moving and unfortunate, is with the lapse of time forgotten. No study is proposed, no review is undertaken,

no new knowledge is gained, and little or nothing is made available for the benefit of other patients who at some future time may be confronted with similar conditions or complications.

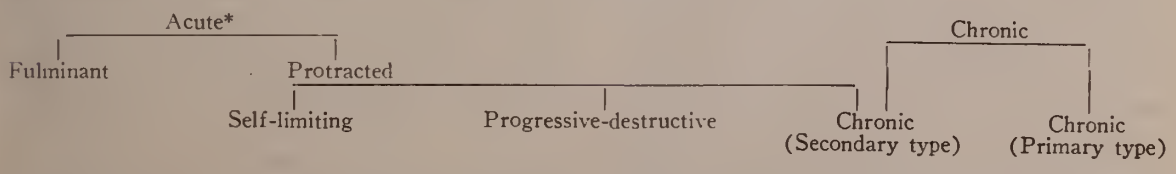
On the basis, therefore, of the accumulated experience in the other states, the recommendations of the Maternal Welfare Committee of the Illinois State Medical Society and the careful thought of the Division of Maternal and Child Health of the Illinois Department of Public Health, an earnest plea is made for the immediate consideration and institution of a program for the study of each maternal death in the state, exclusive of Chicago where such study is in progress. The Division offers to cooperate with the State Society Maternal Welfare Committee so as to outline a method of procedure, to prepare the necessary forms, to supply the trained obstetric personnel, to gather all of the facts, to present them for review and analysis by the Committee, and to assist in the discussion of such medical audit before county societies and hospital staffs. Through this concerted effort childbirth can be made less hazardous for the women of Illinois and more newborn infants can be saved.

OSTEOMYELITIS OF THE FACE AND THE SKULL

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In this paper an attempt is made to classify 22 personal cases of osteomyelitis of the skull and the face according to the causes of the disease and to adjust this classification to another classification which in previous studies[1,2] I have based upon the clinical course of the disease. These types of classification are useful from the clinical point of view because the disease is of a rather protean character and because a classification, based upon bacteriologic findings, is not available despite all efforts in this respect.

My previous classification was slightly modified and reads as follows:



In all instances in which the infection of the bone is the outstanding symptom the disease runs either a protracted or chronic course while in the fulminating cases the infection enters the meninges and/or the brain along pre-existant channels so rapidly that there is no time for extensive changes to be developed in the bone.

So far as the causes are concerned it is not always possible to make a definite statement in this respect. However, in 22 of my cases the patients furnished sufficient data concerning the cause of the osteomyelitis. Based upon these data the following types must be considered:

I. Metastatic osteomyelitis: This is an inflammation of the bone which is caused by a metastatic infection in the course of a systemic blood stream infection. In 2 personal cases the osteomyelitis was caused by scarlet fever and erysipelas respectively. In both cases the disease ran a self-limiting course forming one sequestrum of the frontal squama close to the midline. Both cases were cured by sequestrotomy. In one case, concerning a child, a normally sized frontal sinus developed on the involved side after removal of the sequestrum.

II. Traumatic osteomyelitis: This type is caused by one or several injuries to the forehead. In the presented cases the injuries were usually not severe viz., they did not cause a gross fracture of the bone. In these instances the frontal sinusitis is frequently secondary in character viz., the infection of the bone of the frontal squama is first and the infection of the frontal sinus mucosa is next. This concept follows from the fact that in these instances the infection may settle in the bone even in the absence of a frontal sinus. Since the first symptoms of frontal sinus infection may appear several months after

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*In these cases the term "acute" does not concern the duration of the disease which may extend over a period of several weeks, but it refers to the onset of the disease which invariably is associated with symptoms of an acute inflammation of bone.

the injury, it may be difficult to state as to whether the injury is actually the causative factor. Nevertheless, it is important to note eventual injuries in the history of frontal sinus infections because these cases are prone to involve the bone.

In three personal cases the disease ran the course of a chronic osteomyelitis of primary type; it caused a sclerosis and thickening† of the bone which usually harbored a latent infection. If the involved frontal sinus is large and if there are ridges originating at the walls of the sinus and projecting into the lumen of the sinus, the formation of new bone may cause septa which cut off parts, particularly the lateral recess, from the rest of the sinus. The separated cavities likewise may harbor infection.

The disease has not an acute, but an insidious onset and extends over a period of several years, occasionally causing slight exacerbations, and may create fistulae of the bone and the skin in a later stage. The symptoms are pain, headache, general malaise, eventually formation of an osseous tumor at the forehead. X-ray films show the sclerosis and thickening of the sinus walls and of the bone surrounding the sinus. The nasal findings are not conclusive. The nasofrontal duct was probed in one case and was found to be narrow. However, in this case a partial resection of the middle turbinate had been performed by another rhinologist. This is the symptomatology, in the instances, in which, according to the history, the frontal sinus was not involved by an infection, previous to the injury. It is likely that the traumatic osteomyelitis runs an entirely different course, if the injury concerns a previously infected sinus.

The antibiotics are of no value in these instances. If there is a fistula of the skin or if the headache is not bearable, an operation after the technic of Riedel or Jansen-Ritter should be performed. The anterior wall of the sinus should be either removed entirely or should be left alone viz., not even the periosteum should be stripped off. It is useless and dangerous to drill holes in the anterior wall. If there is no external fistula and if the headache is not excruciating the decision concerning surgery must be made in each individual case because the disease, if left alone, does not cause intracranial complications or metastases. Among 3 personal cases an operation on the bone was refused in one case. In the second case a Riedel-operation was performed. In the third case a drill hole was made in the anterior wall by another rhinologist. This case developed a spreading, post-operative osteomyelitis requiring several operations.

The following case is an example of this type of osteomyelitis:

CASE I

W.T., white, male, age 64. While in the army in Greece in 1912 he was injured at the bone above the right eye by a bullet. No treatment was applied. In 1915 he noticed occasionally a swelling in the inner angle of the right eye. Gradually a draining sinus was established in this area. In 1916 the right eye became swollen and there was pain in the right eye. On August 15, 1920, an operation was performed and he had no more complaints. Since summer 1946 he feels like drunk, the head is too heavy and occasionally there is secretion from the fistula in the inner angle of the right eye. He also complains of loss of appetite, weakness, paresthesias in the head and neck, and pain all over the body. There is cloudiness of vision.

At admission, on October 18, 1946, Kahn test was negative. Hemoglobin was 85%. There were 7200 leucocytes in the blood. He was mentally alert and cooperative. There was a scar below the right eye brow and a fistula within the scar. The frontal sinus could not be probed and there was no secretion, but there was an eccema around the fistula. Above the inner part of the right eye brow there was a deep depression of the bone, the size of a rice kernel. The floor of the depression was covered by dry pus. On the left side there was a scar within the eye brow which was freely movable on the underlying bone, while the depressed scar on the right side was adherent to the bone. The mesial portion of the floor of the right frontal sinus was thickened. Eye movements were free. There was an atrophic rhinitis of slight degree. On October 19, a Riedel operation was performed in intratracheal anesthesia, on the right side. The floor of the frontal sinus was uneven and covered by a thickened connective tissue. The frontal sinus mucosa was thin. There were no abnormal contents in the sinus. The lumen of the sinus was markedly narrowed by newly formed bone which had been laid down on the lateral, superior and mesial wall of the

†For this reason this type of osteomyelitis was called "obliterative sinusitis" or "proliferative osteomyelitis". This terminology is apparently not appropriate. The obliteration of the sinus is not significant of this type of osteomyelitis because it may be likewise caused by bone diseases which, in the present stage of our knowledge, are not bacterial in origin such as osteitis fibrosa or osteitis deformans. Likewise the proliferation of tissue per se is not significant because a proliferation of tissue occurs even in the progressive-destructive type of acute osteomyelitis. The difference is only that in the latter type the tissue which proliferates, is granulation tissue, while it is bone in the primary chronic osteomyelitis. For this reason, I have made an attempt in previous studies[1,2] to establish this type of osteomyelitis as a clinical entity using the term "chronic or sclerosing osteomyelitis."

sinus. Within the newly formed bone at the lateral wall of the sinus there was a cavity, filled with a small amount of mucus and covered by a thin mucosa which was not in communication with the rest of the sinus. By removing newly formed bone a communication was created. The frontal process of the maxilla was thickened, causing a narrowing of the nasofrontal duct. This bone as well as the thickened bone of the anterior ethmoid was removed. There was about 1 cc. of pus (containing hemolytic and non-hemolytic staphylococci) in one cell of the anterior ethmoid. In the anterior wall of the frontal sinus there was a defect filled with firm connective tissue which pulled the skin into the bone defect. The connective tissue inserted at the newly formed bone which had been laid down at the frontal septum. Within the newly formed bone at the frontal septum there was a second small cavity covered with thin mucosa, containing a small amount of mucus and not communicating with the rest of the sinus. The posterior wall of the sinus was normal and gave rise to several bony ridges. Uneventful recovery ensued.

Microscopically the connective tissue scar contains firm connective tissue and a hyperplastic epidermis. Parts of the epidermis are displaced into the depth of the connective tissue. On some places there is a chronic inflammation, on other places a hyaline degeneration of the connective tissue and a marked calcification. Within the hyaline connective tissue numerous nerves were discovered. This is likely the cause of the intensive headache, the patient was complaining of. The newly formed bone is cancellous. The bone trabecles consist of lamellar bone. Within the marrow spaces there is a connective tissue, almost void of blood vessels. There is neither osteogenesis, nor osteoclasis.

III. Osteomyelitis in chronic frontal sinusitis: This type is caused by a chronic sinusitis of long standing. For this reason the disease is found particularly in persons of advanced age. Among 6 cases of this type the youngest was 47, the oldest was 74 years old. The clinical course follows the pattern of primary chronic osteomyelitis as in traumatic osteomyelitis. However, in these instances the sinus infection is primary and not secondary as in traumatic osteomyelitis. In 3 instances the nasofrontal duct was probed and was found to be patent. Although the disease may run over a period of years it does not cause intracranial complications nor metastases. However, it may cause sequestra and draining sinuses. The treatment is the same as in traumatic osteomyelitis.

The following two cases are examples of this type of osteomyelitis:

CASE II

P.W., white, male, age 47. For 20 years he suffers from frequent colds and purulent discharge from right nostril. Occasionally from frontal headache and pain in the neck. In April 1946 there was a sudden edema of the right upper lid, marked pain in the right eye, but there was no chill. Penicillin was administered. The lid abscess was incised. A great amount of pus escaped and a fistula formed in the upper lid which is draining from time to time. There is a four times positive Kahn.

At admission, on July 27, 1946, a narrow fistula was found about in the center of the right upper lid. There was no tenderness of the walls of the frontal sinus. The head of the right middle turbinate was edematous and a probe passed through the nasofrontal duct. X-ray film showed a chronic osteomyelitis, involving particularly the anterior wall of the frontal sinus. Hemoglobin was 85%. There were 4,620,000 erythrocytes and 21,600 leucocytes (59% polynuclear cells, 32% lymphocytes, 6% monocytes and 3% eosinophiles) in the blood. On August 15, 1946 a Riedel operation was performed. The lid fistula led into the temporal recess of the frontal sinus. The floor of the frontal sinus had a thickness of about one half of one cm. The frontal sinus was very narrow due to newly formed bone at all walls, particularly at the anterior wall. Within the newly formed bone there were narrow channels filled with granulations, creating a worm-eaten appearance of the bone. The newly formed bone originating from the interfrontal septum was partially removed in order to clear the opening of the nasofrontal duct. In the lateral portion of the floor of the frontal sinus there was an opening, the size of a pea and filled with a bluish-black mucosa. After incision pus (which did not contain bacteria) escaped from the temporal recess of the frontal sinus which had the size of a cherry and did not communicate with the rest of the sinus By removing newly formed bone a communication was created. The lid fistula led into this recess. The frontal process of the maxilla as well as the lamina papyracea were thickened, thus causing a marked narrowing of the anterior ethmoid. The convalescense was uneventful, except a lid edema which appeared in the upper lid of the left side and disappeared after a few days. Despite administration of penicillin there were 19,000 leucocytes (60% polynuclear cells, 35% lymphocytes, 2% monocytes and 3% eosinophiles) in the blood on August 23. An antiluetic treatment was instituted. Although the wound and the lid fistula closed perfectly, the patient complained of double vision even 8 months after the operation. Microscopically the mucosa of the temporal recess was thickened and consisted of connective tissue which on some places was markedly inflamed, on other places hyalinized. The boundaries between the two types of changes were sharp. The tissue was covered by an hyperplastic squamous epithelium which extended deeply into the inflamed connective tissue. The newly formed bone was cancellous. The trabecles consisted of lamellar bone, to a small extent of web-like bone. In the marrow spaces there was connective tissue, which was not inflamed and contained only a small number of blood vessels. There was a small amount

of osteogenesis. In large areas there was neither osteogenesis nor osteoclasis.

CASE III

J.M., white, male, age 64. In 1913 he suffered from severe frontal headache. An endonasal operation was performed which was not successful. Later an external frontal sinus operation was performed. Following this operation a fistula formed leading into the frontal sinus. The fistula continued to drain for one and one half years. In 1915 a second operation was performed and the fistula closed. About 1920 the defect at the forehead was filled by local injection of paraffine. There were no complaints until 1941 when he bumped his forehead. Three days later his eye lids started to swell and he had some pain in this area. The swelling was lanced 8 days later and a small amount of pus was recovered. He then developed a draining fistula at the point of lancing over the left eye brow and this has continued to drain ever since despite an attempt to close this fistula by an operation on January 1942.

At admission, on March 18, 1942 pus was found in the right middle meatus of the nose. The skin of the forehead is reddened and the forehead protrudes somewhat. There are two fistulae on the left side, discharging yellowish green pus. There are red scars in both eye brows. X-ray film shows increased density over practically all of the sinuses suggestive of pansinusitis. There is an irregularity of contour of the anterior wall of the frontal sinus, probably of operative origin. On March 26 an incision was made above the hairline from side to side extending down, on the left side closer to the orbit. The large flap was freed from periosteum downward exposing the frontal sinuses. In the region of the left frontal sinus there were many granulations. Pus exuded from the sinus. The granulations were curettet away exposing an opening in the anterior wall of the left frontal sinus. The posterior wall was intact. The region of the interfrontal septum consisted of hard, hyperostotic bone. In the region of the nasal bones there was more hyperostosis. A Riedel operation was performed. A great amount of small pieces of paraffin scattered throughout the subcutaneous tissue were removed by dissection. The skin was closed with silk and two iodoform drains were inserted under the skin flap. The frontal sinus was drained through the nose. Uneventful recovery ensued. In the pus hemolytic staphylococcus aureus was found. Microscopic examination revealed a dense connective tissue in which are embedded numerous large foam cells with scattered foreign body giant cells, surrounding empty spaces which originally contained lipoid material. The diagnosis of fat granuloma was made.

IV. *Osteomyelitis in acute frontal sinusitis*: A comparatively frequent source of osteomyelitis is the acute sinusitis, particularly when it occurs after swimming. Among 9 cases which belong to this group, in 6 instances the sinusitis was caused by swimming. Perhaps a severe acute exacerbation of a chronic sinusitis may cause the same type of osteomyelitis; however, acute exacerbations seem to be less frequently the cause than acute sinusitis. This is perhaps one of the reasons that this type of osteomyelitis inflicts usually young individuals. In one of my cases the age was not noted; in the other cases the age varied between 8 to 23 years.

In these cases there are primarily the symptoms of a severe acute infection of the upper sinuses. After several days the acute sinusitis may apparently subside; but there are always symptoms which persist, indicating that the inflammation has passed beyond the mucosa lining of the frontal sinus. These symptoms are: daily elevations of temperature, particularly in the evenings; persistent pain, particularly nocturnal pain in spite of adequate drainage through the nasofrontal duct; persistence of swelling of the upper eye lid and, finally, periosteal swellings over the forehead (pott's puffy tumors). X-ray examination presents merely a haziness of the sinus; bone pathology becomes manifest only several days later. Nevertheless, the clinical symptoms permit the diagnosis of an incipient osteomyelitis even in the absence of a confirmative x-ray finding. If it is not possible to arrest the infection at this incipient stage the disease may run occasionally a self-limiting, more frequently a progressive course. Among 8 instances in which the x-ray film revealed bone pathology, only 2 cases ran a self-limiting course. In one of these cases the disease continued over a period of 6 months, in the other over a period of 3 years. In both instances the infection caused the formation of one single sequestrum which was formed in one of the walls of the frontal sinus, eventually including a small portion of the adjacent frontal squama. Sequestrotomy achieved a permanent cure in both cases.

The following case is an example of the self-limiting course of acute osteomyelitis.

CASE IV

D.N., male, white, age 11. About July 1, 1939, after swimming, he complained of headache and slight fever. After a day or two the right eye became inflamed and sore. The lid swelled to the size of an egg, colored yellow and purple, and was very hard. About July 15, the lid was incised. X-ray picture ostensibly did not show sinus infection. In the pus staphylococci were found. There was profuse drainage for several weeks. The wound closed about September 1. In the following year there were no signs

of infection, but the boy was quite irritable. In September 1940, a small reddened area on the right upper lid gradually turned out to be a draining fistula. In the pus staphylococci were found. Treatment with x-ray and sulfathiazole was ineffective. On November 15, 1940, the anterior wall of the frontal sinus was exposed, but no destructive lesion was found. On the fifth day after surgery, there was considerable fever, swelling of the lids and considerable drainage from the incision. This disappeared in about 4 days. About December 15, the reddened area re-appeared at the same site of the right upper lid and in January 1941 drainage again began from a fistula of the upper lid.

I saw the boy on June 12, 1942 for the first time. The boy was in good health and had no complaints. The anterior wall of the frontal sinus was tender. There was no fever and the blood examination was normal. About the center of the right upper lid there was a bud of granulation tissue, the size of a rice kernel, covered with crusts. Surrounding the granulation tissue there were scars which raised a part of the margin of the upper lid, causing a triangular defect of the palpebral tissure. On the right side there was a hyperplastic rhinitis, but no pus. X-ray film showed a small frontal sinus on the right side which was cloudy, but had distinct boundaries. In the lateral part of the floor of the right frontal sinus there was a sequestrum which had not changed in shape or size for a period of one and one-half years. An operation after Jansen-Ritter was performed. The floor of the sinus was removed and the sinus was drained through the ethmoid into the nose. The mucosa of the frontal sinus was normal, the mucosa of the ethmoid hyperemic. No sequestrum could be discovered. Therefore the incision of the skin was prolonged lateralward. In the lateral part of the eye brow the periosteum was thickened and firmly grown together with the bone. After incision of the periosteum there was a cavity between the periosteum and the bone filled with granulations. The bone of the lateral wall of the sinus was thickened and uneven. At the junction of the lateral and posterior wall of the sinus there was a sequestrum, the size of a bean which was removed. The dura beneath the sequestrum was found to be covered with a small amount of granulations. There was an uneventful recovery and no recurrence occurred.

More important and more frequent is the progressive course of acute osteomyelitis. In these instances two types of progress should be distinguished: In the first type the infection spreads without restraint. The spreading occurs continuously or by leaps, sparing parts of the skull. The bone is destroyed particularly by proliferating granulation tissue or, to a lesser degree, by frank pus. This causes the moth-eaten appearance of the bone on the x-ray film. Bone regeneration does not advance beyond microscopic limits. This is the progressive-destructive type of osteomyelitis which occurs when in the early stage no treatment or almost no treatment was applied or when the resistence of the tissue fails or when both, treatment and resistance, are insufficient. Two cases belong to this group. In both intracranial complications occurred 5 to 6 weeks after the onset of the acute sinus infection; in one case a sinus thrombosis plus a subdural empyema, in the other case a brain abscess. In one case the treatment, prior to the intracranial complication, consisted of administration of aspirin, heat and incision of soft tissue abscesses; the other case was treated by chiropractic technic.

The following case presents an example of this group of cases:

CASE V

White, male. On August 22, 1927 had an acute "head cold" and subsequently severe pain in the right forehead. Despite conservative treatment for 10 days the pain did not disappear entirely. On September 2 the pain had subsided, but there was a marked swelling of the right upper lid. The swelling extended up to the hairs, lateralward to the malar process. In the right middle meatus of the nose there was some pus and the x-ray film showed a pansinusitis on the right side. Aspirin and heat were administered. His temperature rose to 99.5. On September 10 the abscess in the right upper lid was incised and about 60 cc. of pus (containing staphylococcus albus) escaped. The abscess cavity extended to the temple. The secretion from the incision continued about 2 weeks. On October 2, the patient felt perfectly well.

In the evening of October 4, he complained of severe headache. He became delirious and insulted his wife, with whom he always had lived very happily, using vulgar expressions. There was a rigor. I saw the patient on October 5 for the first time. His temperature was 102.8. He was drowsy. Tendinous reflexes were normal. There were no pyramidal or meningeal symptoms. The right eye lid was red and swollen and the eye was closed shut. Fundus was not examined. Pupils and eye movements were normal. The skin of the forehead was edematous and tender. Close to the hairline in the midline there was a tumor, the size of a hen's egg, covered by normal skin and not communicating with the abscess of the eye lid. There was a definite fluctuation of the tumor mass. At the anterior end of the right middle turbinate there were some crusts. X-ray film revealed pan-sinusitis on the right side. An operation was performed. The frontal squama was necrotic to a large extent. In the right frontal sinus there was non-fetid mucopus and polypi. The walls of the sinus were normal and the nasofrontal duct was patent. A large skin flap was prepared and turned upward. The right side of the frontal squama was removed together with the posterior wall of the frontal sinus. There was an extensive pachymeningitis beneath the necrotic bone. Then the abscess at the hairline was incised. A great amount of pus escaped,

but the bone was apparently normal. A cross incision was made into the markedly thickened dura and a large subdural abscess was drained. A small brain herniation developed immediately. The cerebral cortex was anemic and showed several necrotic spots. The pial veins were thrombotic and accompanied by strips of pus. After tamponade of the subdural space a puncture of the brain was performed which did not reveal pus. After the operation the patient regained consciousness for 24 hours. On October 6 the brain herniation had increased and the puncture of the brain was repeated with negative effect. On October 7, the temperature rose to 106. He was unconscious, the herniation reached the size of an apple and he expired. At autopsy, the periosteum of the bone, corresponding to the abscess at the hairline, was found to be necrotic. The inner table was uneven, covered with pus and there was an external pachymeningitis. In the superior longitudinal sinus there was a partly organized thrombus which did not extend to the foramen coecum. There was a large subdural abscess, but there was almost no pus at the base of the brain. In the left frontal sinus and in both ethmoids there was pus. The right frontal lobe was necrotic, but the softening did not extend into the ventricle. There was no brain abscess.

In the second type there is likewise a progress of the infection due to proliferation of granulations which destroy the bone or cause sequestra, frequently involving the outer table only and a portion of the diploe, but sparing the inner table. However, in these instances the body apparently offers a definite, although not always successful, resistance, causing formation of new and sclerotic bone. This struggle between invading infection and resistance of the tissue may be recognizable on the x-ray film which frequently shows a motley jumble of sclerotic bone, small sequestra and moth-eaten bone. While the progressive-destructive type extends over a period of several weeks, this type may extend over a period of several years. Therefore, it is called chronic osteomyelitis of secondary type viz., secondary to an acute osteomyelitis.

The most important feature in these instances is a chronic septicemia, characterized by the appearance of metastases and eventually by a progressive deafness. Marked changes of the blood or of the spleen may be absent. In 4 personal cases it took 3 years, on the average, until the first metastasis appeared, which soon was followed by other metastases. One of the 4 cases died from a general amyloidosis after an illness of 13 years. The septicemia occurs even in these instances which on the x-ray film show a great amount of newly formed, sclerotic bone.

In my experience the secondary type of chronic osteomyelitis made its appearance when the acute stage of the infection had been treated with chemotherapy exclusively or with sequestrotomy. Chemotherapy consisted in my cases of administration of sulfadrugs; penicillin was not available. Since data concerning the dosage of sulfadrugs are not available, it is likely that the dosage was not sufficient. Personal experience proves that chemotherapy applied in the early stage viz., prior to the manifestation of x-ray changes of the bone, may prove successful even in the presence of Pott's puffy tumor. This shows the following case which is the only case in this series in which no operation was performed.

CASE VI

Z.L., white, female, age 16. On September 2, 1942, she was swimming. The following night she felt pain in the left eye. On September 6, there was a swelling of the left upper eye lid. On the next day the swelling spread over the bridge of the nose and the forehead. There were no chills, no discharge from the nose, no headache, but there was tenderness over the left side of the forehead and the temperature was 100.8.

I saw the girl on September 9, 1942. There was a swelling of the lateral portion of the left upper eye lid, a slight swelling and marked tenderness over the lateral part of the left forehead. There was no pus in the nose. X-ray film showed a large cloudy frontal sinus on the left. She was put on nose drops, heat and sulfathiazole and all symptoms gradually disappeared. In the next few days there was a fugitive edema over the glabella, over the left side of the forehead, in the left upper lid and at the angle of the left mandible. The girl was irritable and hypersensitive for noises. But there was no fever. On October 5, there was pain along the ascending ramus of the mandible and an enlarged gland at the angle of the left mandible. No pathology was found in the pharynx or in the teeth. The left middle turbinate was fractured mesialward. On October 8, the gland was smaller, but there was a trismus. No pus was found in the nose. On October 9, there was no longer pain in the mandible and the trismus was less marked. In the left middle meatus there was edematous mucosa, but no pus. The frontal sinus could not be entered. The girl was again put on sulfathiazole. On October 15, there were 7900 leucocytes in the blood and the sulfathiozole determination was 4, lmgm. In a few days all symptoms subsided. Up to the present, there was no recurrence of osteomyelitis, but the cloudiness of the left frontal sinus did not disappear.

If the x-ray film does show pathologic changes of the bone, administration of antibiotics alone or associated with sequestrotomy did not prove successful in my experience. It is likely that this

type of treatment may prevent a rapid spreading of bone infection or the rapid development of an intracranial complication; however, it frequently does not prevent the acute osteomyelitis to turn into the secondary type of chronic osteomyelitis, associated with chronic septicemia. Consequently, I strongly advocate radical surgery when x-ray examination reveals incipient pathologic changes of the bone. Obviously, chemotherapy in sufficient dosage is an inestimable adjuvans of surgery.

V. *Post-operative osteomyelitis*: I saw 3 cases of this type. In one case osteomyelitis followed a Luc-Caldwell operation on the maxillary sinus plus endonasal ethmoid operation, which were performed by another rhinologist. In this case osteomyelitis ran a progressive-destructive course over a period of about 9 months and caused, finally, a fatal meningitis. In the second case osteomyelitis followed an external frontal-ethmoid operation. In this case osteomyelitis likewise ran a progressive-destructive course over a period of about 4 months and caused finally a fatal septicemia. In the third case a hole was drilled in the anterior wall of the frontal sinus in a case of traumatic osteomyelitis by another rhinologist. This was followed by an acute osteomyelitis which took a progressive-destructive course. This case which was finally cured by extensive surgery, is not actually a post-operative osteomyelitis because there was a traumatic osteomyelitis prior to the first operation.

See table 1 which reports 23 cases, since one case had to be classified as traumatic and as post-operative osteomyelitis as well.

TABLE 1

Type of osteomyelitis	Cause of Osteomyelitis	No. of cases	Mortality rate
Self-limiting	a.) Acute sinusitis	2	0
	b.) Systemic infections	2	0
Progressive-destructive	a.) Acute sinusitis	3	2
	b.) Post-operative	3	2
Chronic-secondary	Acute sinusitis	4	1
Chronic-primary	a.) Chronic sinusitis	6	0
	b.) Traumatic	3	0
		23	5

From this study the following conclusion can be drawn:

1. There is evidence that the cause of osteomyelitis does exert an influence upon the course of the disease.

2. Osteomyelitis, caused by acute frontal sinusitis or by surgical operations upon the sinuses, has an unfavorable prognosis.

3. It is likely that in traumatic osteomyelitis the mucosa of the frontal sinus becomes involved secondarily viz., that the infection settles within the marrow of the frontal squama first, and advances toward the mucosa. For this reason, the first symptoms of frontal sinus infection often become manifest several months after the injury. This may cause uncertainty regarding the injury as a causative factor. Nevertheless, in all chronic infections of the frontal sinus an inquiry concerning even slight injuries of the forhead must be made because in these instances an involvement of bone is likely.

4. Antibiotics are of no value in primary chronic osteomyelitis.

5. An osteomyelitis in acute frontal sinusitis, particularly if the infection is caused by swimming, may take a self-limiting course, forming a sequestrum, or a progressive course. In the latter case the disease is rapidly progressive causing an almost uninterrupted destruction of bone and extending over a period of several weeks, or it is slowly progressive causing a periodic destruction and sclerosing of bone and extending over a period of several years. Chronic cases of this type are usually associated with a chronic septicema.

6. Administration of antibiotics may prove successful in osteomyelitis caused by acute frontal sinusitis, if it is applied in high doses and if the x-ray film fails to show pathologic changes of the bone. Administration of antibiotics under these circumstances may be even successful in the presence of Pott's puffy tumor. If, however, the x-ray film does show the slightest signs of an incipient osteomyelitis administration of antibiotics may eventually prevent a rapid spreading of bone infection, but frequently it does not prevent the acute osteomyelitis to turn into the secondary type of chronic osteomyelitis. For this reason, in these instances surgery is preferable.

307 N. Michigan Blvd.

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DISCUSSION

Dr. Thomas C. Galloway, Evanston: Dr. Brunner has given a thorough discussion of cranial osteomyelitis from the standpoint of pathology, but no discussion

fully explains this condition. I think, unless it considers the bacteriology. It has been hard to explain why it seldom follows radical wide open operations, but usually has occurred with minor procedures. That suggests anaerobic factors might be important. Following Meleney's work on anaerobes I was able to report 13 cases of cranial osteomyelitis in all of which we isolated microaerophilic or anaerobic hemolytic streptococci. Williams had already reported similar findings. The behavior of these organisms alone or in symbiosis with staphylococci, it seems to me, explain the unusual features of these lesions and gives indications for proper treatment. The sulfa drugs affect them little and penicillin usually does not destroy them though it may arrest their progress. Surgery of the type Dr. Brunner described is still indicated.

PROTEIN DEFICIENCY IS CALLED MOST COMMON DISEASE IN WORLD

The most common disease in the world — one that is the basis of many illnesses — does not even have a name in the accepted medical language, according to Francisco de P. Miranda, M.D., director of the National Institute of Nutrition, Mexico, D. F., Mexico.

Writing in the February 21 issue of *The Journal of the American Medical Association*, Dr. Miranda says that this disease is a deficiency of protein foods or of good quality proteins, or a deficiency of the essential amino acids — the chemical compounds which make up protein.

Dr. Miranda's name for this only too common condition is "hypoproteinosis." He writes that its outstanding cause "is the low economic level on which half of the population of the world lives. This economic want leads to the suppression from the diet of the most expensive foods of animal origin, usually badly compensated by an excess of carbohydrates derived from the cheapest cereals or tubers: rice, corn and cassava.

"It is usually a chronic condition difficult to overcome and is essentially different from the plight of the people under the stress of war or famine, which is usually acute and may be remedied by emergency measures chiefly by cereals.

"It is true that undernutrition, malnutrition and hypoproteinosis may be found superimposed, as now happens in China and India, because to the chronic lack of good quality proteins there is added a lack of certain vitamins, and also an insufficiency of carbohydrates and fats. The extreme condition of lack of all kinds of food leads to inanition, which is usually spoken of as hunger.

"But it is conceivable that the most frequent of all these conditions of want is that produced by insufficient protein or essential amino acids."

"Hypoproteinosis is a condition which specially affects children before six years of age," Dr. Miranda continues. He points out that it affects them by a tendency to stop or delay growth — possibly by preventing the pituitary

With either a protein or a pituitary deficiency, the resistance to infection of all kinds is also very low, because the antibodies which fight disease are not readily produced in the blood. Furthermore, Dr. Miranda states, there is a serious tendency to diarrhea which may be connected with a lack of one of the amino acids needed for a healthy liver.

If a child survives to the age of 6, Dr. Miranda observes, he becomes "adapted" to hypoproteinosis and is less likely to succumb to infections other than rheumatic fever or tuberculosis. But the adaptation is at a lower all-round level. And the symptoms of chronic hypoproteinosis will remain even in the adult: dry, scaly skin: cold hands and feet: low blood pressure.

Case Report

HYDATIFORM MOLE WITH ECLAMPSIA OCCURING IN THE FOURTH MONTH OF PREGNANCY

Burton J. Winston, M.D.
WAUKEGAN

The simultaneous occurrence of two morbid conditions, each of which are infrequent, has prompted the author to report this case. The frequency of Hydatid mole has been estimated ranging from 1 in 2,400 to 1 in 20,000 pregnancies.[1] While hydatid moles are more apt to occur in multiparas, eclampsia is more common in the primipara. It is possible that this difference in time of life partly accounts for the infrequency of the two complications occurring together in the same pregnancy.

REPORT OF A CASE

Mrs. D. C., age 19. Little is known of her past history except that she was honorably discharged from the WAC about five months prior to her present illness. The patient had gone to a mother and daughter summer camp, having arrived from a nearby city where she was attending a prenatal clinic.

On the evening of July 4, 1946 after returning from a swim in the lake, she complained of nausea, vomiting and a severe headache. The following morning these symptoms were still present. In addition, she complained of "spots before her eyes," which she attributed to the glare of the sunlight. Several hours later her mother noticed that she was sleeping in their cabin, but made no attempt to arouse the girl, believing that the rest would be beneficial. At 6 P. M. the mother returned to the cabin and found the patient having a convulsion. She notified the camp nurse who contacted the author. The patient was ordered to the hospital immediately. En route, she had several convulsions in the ambulance.

Physical examination on admission to the hospital revealed a well developed, well nourished white female lying in bed in a comatose condition. Pupils were dilated, fundus normal, stertorous respirations and blood pressure 200/-110. The pulse was bounding. The uterus was enlarged to the size of about 4-5 months pregnancy. Tendon reflexes were hyperactive. Catheterization failed to return any urine. No evidence of edema was present.

Treatment. On admission to hospital patient was given ¼ grain morphine and 2 grains of luminal. In addition, she received 50 cc. of 50% glucose intraveneously. Thereafter she rested quietly. About three hours after being admitted to the hospital she suddenly became cyanotic and coughed up frothy sputum, and numerous rhonchi were heard in both lung bases. She was seen in consultation by another physician who performed an intubation so that the thick tenacious sputum could be aspirated. Artificial respiration by means of the Emerson resuscitator relieved the cyanosis although her pulse remained weak and thready. Additional treatment consisted of 5 cc. of 25% magnesium sulfate intravenously every three hours; blood plasma, whole blood, 5% glucose in saline I. V. and 20% Ringer's solution in 500 cc. distilled water I. V. in an attempt to produce diuresis.

Patient died twenty-one hours after admission to the hospital and about forty hours after the initial complaint of nausea, vomiting, and head-

ache. She was kept alive for eighteen hours by resuscitation. At the time of her death she began to show evidence of edema which was most marked about the face and neck. During the entire period of hospitilization, not one drop of urine was obtained, although a catheter was in the bladder at all times.

Autopsy findings. Upon opening the uterus a large amount of bloody fluid escaped and a soft mass of placental-like tissue filled with small mucoid cysts was removed. The cysts had the appearance of hydatidiform structures, and the placental mass weighed 700 grams.

A small male foetus, about 12 cm. long, was also present in the uterus. The fetus was rigid and evidence of early decomposition noted, indicating that the fetus had been dead for about 24 hours previous to the mother's death.

Both the right and left ovaries were enlarged to about 21 cm. in diameter and completely filled with multiple cysts, varing in size from a few millimeters to 3 cm.

The liver appeared reddish brown and was harder than normal. The surfaces were smooth. Sections were taken for microscopic studies.

The kidneys were of normal size. The capsule stripped with difficulty and cut sections had the appearance of cloudy swelling. Pelvics were normal in appearance.

The bladder contained about 5 cc. of dark, smoky urine, the specimen of which was removed for examination and found to contain many red blood cells and no casts, and on heating became completely coagulated.

There was a small amount of clear fluid in both right and left pleural cavities.

The heart did not appear abnormal or enlarged.

Further examination was not made because permission had been granted only for abdominal exploration.

Microscopic examination. Kidney: There was a morbid degree of cloudy swelling present especially in the region of the proximal tubules. There was a recent hemorrhage in the tubules. Some areas within the cortex showed dilatations and these spaces were filled with coagulated protein. Except for some thinning of the capillary walls of the glomeruli, the latter are unusually normal for a toxemia.

Liver: There was extensive central necrosis with hemorrhage. The cytoplasm of the liver cells are granular and their nuclii are pyknotic. The general picture is one of a severe toxemia.

Chorion. The villi were large and the central portions myxomatous. Some of the villi were edematous and many almost acellular. The cells about the villi were of the syncytial and Langham type. Many of these cells showed a marked degree of mitoses. These findings were diagnostic of a hydatid mole.

COMMENTS

The suggestion of Whitacre, Loeb, and Chin[2] that eclampsia is characterized by a chain of symptoms and distinct pathologic lesions which are associated with angiospasm, is certainly applicable in this case. The sudden occurrence of symptoms following a plunge in the cold water of Lake Michigan would be equal to applying the cold pressor test to the entire surface of the body. The angiospasm undoubtedly involved the cerebral circulation producing convulsions, as well as the renal circulation with the resulting anuria.

The work of numerous investigators which point to the placenta as a causative factor in the production of eclampsia must not be overlooked. This point is emphasized in a report by Wigger[3]. It is very likely that the placenta stimulates the production of pressor substances which are not destroyed by the liver, and these substances in turn produce the angiospasm with its resulting chain of symptoms.

SUMMARY

A case of eclampsia in a 19 year old primapara in the fourth month of gestation. She developed a complete anuria and respiratory paralysis and expired forty hours after the first symptoms appeared.

Autopsy revealed the presence of a hydatid mole in addition to a fully formed fetus.

This is an unusual case in that the two complications infrequently are found together in the same pregnancy because of the difference in the time of life that each is most likely to occur.

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News of the State

PERSONALS · COMING EVENTS · MARRIAGES · DEATHS

BUREAU COUNTY

Society News.—Dr. Kent McQueen discussed "Referred Pain" before the Bureau County Medical Society at the Perry Memorial Hospital in Princeton.

New Staff Appointments.—Twenty-two physicians and surgeons and one dental surgeon have been appointed to the active medical staff of Perry Memorial hospital, effective Jan. 1. In addition, five appointments were made to the visiting medical staff, and five others to the consulting medical staff according to **Princeville Telephone.**

The board of trustees and the hospital administrator have passed on all appointments, which are for a period of one year. All of the appointees made application, giving information about their schooling, experience and specialties. They also signed the following pledge:

"In making application for appointment to the medical staff of the Perry Memorial hospital, I realize that I should have sufficient pride in this hospital to put forth every effort toward the development of efficient professional service, and I will support the management in the proper administration of this hospital. I agree to abide by the by-laws of the medical staff and by such rules and regulations as may be from time to time enacted. I hereby declare that I shall not engage in the practice of the division of fees under any guise whatsoever. In complying with this principle, I understand that I am not to collect fees for others referring patients to me, nor permit others to collect fees for me, nor to make joint fees with physicians or surgeons referring patients to me for operation or consultation, nor permit any agent or associate of mine to do so."

Named to the active medical staff of the hospital were the following physicians:

C. C. Barrett, Princeton; A. N. Bolz, Walnut; H. E. Brown, Tiskilwa; W. T. Creviston, Princeton; A. G. Everhart, Buda; O. J. Flint, Princeton; O. B. Giltner, Sheffield; P. V. Hall, Princeton; Harold Hamnett, Ohio; J. H. Hopkins, Walnut; F. E. Inks, Princeton; N. S. Johnson, Sheffield; Kent McQueen, Tiskilwa; K. M. Nelson, Princeton; M. A. Nix, Princeton; J. J. Nora, Tiskilwa; J. W. O'-Malley, Ohio; B. I. Ryder, Henry; I. M. Sandberg, Princeton; D. E. Sloan, Princeton; E. H. Schnicke, Wyanet; A. B. Troupa, Princeton. Also appointed to the active medical staff was Dr. J. F. Highfield, dentist, Princeton.

Physicians on the visiting medical staff are: R. E. Davies, Spring Valley; H. B. Dunn, Spring Valley; H. J. Jacobs, Spring Valley; W. A. McNichols, Dixon; and H. A. Small, Ladd.

Members of the consulting medical staff are: H. E. Cooper, Peoria; Clarence Olson, Ann Arbor, Mich.; J. W. Sours, Peoria; J. R. Vonachen, Peoria, all M.D.'s; and W. S. Peters, D.D.S., Peoria.

COOK COUNTY

Society News.—Dr. Philip Thorek, Chicago, addressed the LaPorte County Medical Society, Michigan City, Ind., January 15, on "Partial Colectomy and Partial Hepatectomy for Carcinoma" with motion picture demonstrations. Dr. Henry A. Work, director of the mental health unit of the U. S. Children's Bureau, Washington, D. C., discussed "Mental Hygiene Needs of Children—1948" before the annual meeting of the Illinois Society for Mental Hygiene, March 18. Dr. Alex Hershfield, Chicago, discussed "The Emotions: What They Do For Us" before a meeting of the American Association of University Women in Joliet, March 23. Dr. Ulysses Grant Dailey, Chicago, addressed the Meharry Medical College, Nashville, Tenn., February 9-11, on "The Surgical Treatment of Hypertension."

Personal.—Dr. Robert W. Patchell, recently returned to the active practice of general medicine, following his completion of a year's postgraduate study at the School of Alcohol Studies, Yale University, New Haven, Conn. Dr. Patchell is maintaining offices in Chicago and Berwyn.

Heart Meeting.—Ancel Keys, Ph.D., professor of physiology, University of Minnesota School of Medicine, Minneapolis, discussed "Mode of Life and the Development of Heart Disease" before the annual meeting of the Chicago Heart Association at the Congress Hotel, March 9.

Industrial Conference on Alcoholism.—The first Industrial Conference on Alcoholism was held in the Morrison Hotel, Chicago, on Monday, March 23. Sponsored by the Chicago Committee on Alcoholism Dr. Anton J. Carlson, chairman, the conference was designed to bring to the attention of industry leaders throughout the country facts pertaining to the problem of alcoholic employes and to discuss ways and means of overcoming the problem. At the morning, luncheon, and afternoon sessions there were speeches by prominent medical authorities who have specialized in the disease of alcoholism and outstanding industry representatives who are conscious of the problem.

Appointments of Associate Deans.—Merle Coulter, internationally famous biologist and professor of botany, and Dr. Wright Adams, associate professor of medicine, have been appointed associate deans in the division of biological sciences at the University of Chicago, President Ernest C. Colwell announced February 9. Working under Dr. Lowell T. Coggeshall, dean of the division, Coulter will have charge of the non-clinical departments in the biological sciences—anatomy through zoology. Dr. Adams, who has been in the department of medicine at the university for the past 16 years, will be responsible for the clinical departments and the School of Medicine. He will also assist in the planning of the new hospital buildings at the University—the Nathan Goldblatt Memorial Hospital for Cancer, the Charles Gilman Smith hospital for infectious diseases, and the Gertrude Dunn Hicks wing to Albert Merritt Billings hospital. Coulter, who has been associated with the university for 30 years, was one of the original planners for the biological sciences course in the College of the university, and served as chairman of the College biological sciences committee until his recent appointment. He served as professor of botany at the army university at Shrivenham following the war. He received his doctor's degree from the University of Chicago in 1919, and became an assistant professor in 1921. He was appointed a full professor of botany in 1931. Coulter is the author of **The Story of the Plant Kingdom**, which has been adopted as a standard reference on plant genetics. Dr. Adams, a cardiac specialist, received his bachelor of science and doctor of medicine degree from the University of Illinois in 1925 and 1929 respectively. His first appointment at the university was in 1930.

The Moorehead Library.—The University of Illinois Dental Alumni Association has presented a gift of $2,864 to the college of dentistry for the establishment of the Frederick B. Moorehead Memorial Library in Oral and Maxillofacial Surgery.

The gift represents the first installment of funds for the project, according to Dr. Kermit Knudtzon, president of the Dental Alumni Association. The library will be located on the eighth floor of the UI Dentistry-Medicine-Pharmacy building in the Chicago Medical Center District.

The library will contain books, manuals, and current periodicals in the field of oral and maxillofacial surgery. Old instruments and textbooks also will be sought.

Dr. Moorhead, one of the foremost dental educators, served as the first dean of the University of Illinois college of denistry. He also served as professor and head of the department of oral surgery from 1913 until his death in August, 1944.

The Kretschmer Memorial Lecture.—The seventh Edwin R. Kretschmer Memorial Lecture will be delivered at the Palmer House, April 26, by Dr. Julius White, head chemist, National Institute of Health, Bethesda, Md., on "Experimental Studies on Leukemia in Mice." The lecture was given under the auspices of the Institute of Medicine of Chicago.

Fellowship Available.—The Jessie Horton Koessler Fellowship of the Institute of Medicine of Chicago for the aid of research in biochemistry, physiology, bacteriology, or pathology will be available on September 1, 1948. The stipend is $500.-00 a year with the possibility of renewal for one or two years. Only such applications will be considered as are approved by the head of a department in the fields mentioned or by the director of a research institute or laboratory in Chicago, and which stipulate that the recipient of the fellowship shall be given adequate facilities for carrying out the proposed research, concerning which full information is required in the application. Applications will be received up to July 1, 1948, and should be sent in quadruplicate to Dr. Paul R. Cannon, Chairman of the Committee on the Jessie Horton Koessler Fund, 950 East 59th Street, Chicago 37. Since there are no formal blanks, application should be made by letter.

Appointment at Illinois.—Dr. Sidney P. Colowick of New York City has been appointed associate professor of biological chemistry at the University of Illinois College of Medicine. His appointment is effective April 1.

Dr. Colowick currently serves as an associate in the division of nutrition and physiology at the Public Health Research Institute, New York City. During the war, he conducted civilian research on chemical warfare agents under contract with the Office of Scientific Research and Development.

Dr. Colowick received the Eli Lilly award in biological chemistry in 1947. He is a graduate of Washington University at St. Louis, Mo.

New Scholar in Medical Science.—Dr. Julius B. Richmond, associate professor of pediatrics at the University of Illinois College of Medicine, was recently named as a Scholar in Medical Science by the John and Mary R. Markle Foundation of New York City.

Dr. Richmond is one of 16 scholars who have been selected from candidates nominated by accredited medical schools in the U. S. and Canada by regional committees appointed by the Foundation. The Foundation has allocated a total of $400,000 to their respective medical schools toward their support for five years.

The grants initiate a new Foundation program which is designed to relieve the shortage of outstanding, full-time teachers in medical schools, and to provide more trained investigators for medical science.

John M. Russell, executive director of the Foundation, said that the appointment of the Scholars "is the opening of an attack on the greatest need in medical science today—the need for properly trained medical scientists."

As faculty members of the participating medical schools, the Scholars will devote the next five years to teaching and research. Each school will receive $25,000, payable at the rate of $5,000 for five years, toward their support and the support of the research.

Dr. Richmond received his doctor of medicine and master's degree in physiology from the University of Illinois in 1939. He was appointed to the faculty of the University in September, 1946, following service with the Army Air Forces as a flight surgeon.

Dr. Richmond, in addition to his teaching duties, is currently undertaking laboratory investigations concerning dosage of drugs which depend upon renal excretion. This involves some fundamental studies concerning renal function in infancy.

Dr. Richmond, 31, is married, and has two children. He resides at 2819 N. Cambridge avenue, Chicago.

Dr. Ballenger Appointed Director of Department.—Dr. Howard C. Ballenger, who has been a member of the faculty since 1930, has been appointed professor of otolaryngology and chairman of the department in Northwestern University Medical School, succeeding Dr. John Gordon Wilson, retired. Dr. Ballenger received his doctor's degree in medicine from the University of Indiana, 1911. Formerly a consultant to the United States Public Health Service, he is past president of the Chicago Laryngological and Otological Society.

Grants to Illinois.—The University of Illinois College of Medicine has received the following grants: A $3,500 research grant from the Hematology Research Foundation, Chicago, for studies in leukemia. The studies will be conducted under the direction of Dr. Louis R. Limarzi.

Special Rehabilitation Course.—The speech and hearing rehabilitation division of the University of Illinois college of medicine and the Illinois Eye and Ear Infirmary sponsored a course for parents of pre-school deaf and hard-of-hearing children starting Monday, March 8.

Classes were conducted every Monday through June 28 at the Illinois Eye and Ear Infirmary, 904 West Adams street. The course was offered in cooperation with the Chicago Hearing Society and was designed to provide help and guidance for parents of young deaf or hard-of-hearing children. Lectures, discussions, and demonstrations will cover ways of preparing young deaf children for adequate measurement of their hearing loss, social and educational adjustment, teaching materials and methods, child guidance, speech development, training of residual hearing, lip reading, and knowledge of existing educational facilities and opportunities.

Participants were Dr. Francis L. Lederer, Dr. H. G. Poncher, and Dr. Herbert Koepp Baker of the University of Illinois, Dr. Harold Westlake of Northwestern University, Ray Graham, state director of education of exceptional children; Mary Thompson, executive secretary of the Chicago Hearing Society; Irene Hager, director of the Winnetka public nursery school; and Dr. Hertha Tarrasch, pediatric psychiatrist.

The lectures were open to all parents of deaf and hard-of-hearing children of any age, physicians, teachers, social workers, and other interested individuals.

DU PAGE COUNTY

Society Meeting Formally Opens New Hospital Wing.—Dr. Willis J. Potts, chief surgeon, Children's Memorial Hospital, Chicago, addressed the Du Page County Medical Society and their guests recently in Elmhurst on "Recent Advances in Children's Surgery." The session was held in the new $750,000 wing of the Memorial Hospital of Du Page County which, houses a new auditorium and which in the future, will be the meeting place for the county medical society and other professional groups. According to Dr. Martin F.Heidgen, superintendent of the hospital, the institution is the health center for an area serving more than 150,000 persons.

FRANKLIN COUNTY

"Walking Blood Bank."—The Franklin County Medical Society recently approved the establishment of an American Red Cross "Walking Blood Bank". Voluntary blood donors will be typed and registered and the blood types, addresses and phone numbers of the prospective donors will be kept in a master file of the county chapter of the Red Cross. The register will be available to doctors of medicine and hospitals. Under the Red Cross there will be no cost to the beneficiary as the Red Cross will finance the program with the cooperation of hospitals, according to the Zeigler News.

FULTON COUNTY

Society News.—Dr. James W. Sours, Peoria, addressed the Fulton County Medical Society in Canton, February 27, on "Diabetes."

LAKE COUNTY

Society News.—Dr. Louis Lams, Waukegan, addressed the Lake County Medical Society recently in Waukegan, on "Neurologic Reactions of Streptomycin."

Personal.—Dr. Stanley Anderson, has moved his practice to Waukegan after practicing in Grayslake for sixteen years. His office space in Grayslake was sold to Dr. Lawrence R. Qualmann.

LIVINGSTON COUNTY

Society News.—Dr. O. L. Bettag, Pontiac, addressed the faculty members and students of Kankakee High School, St. Patrick High School and St. Joseph Academy, January 7, on "Chest Diseases."

New Members.—Elected to membership in the Livingston County Medical Society recently were Drs. Marie A. Smith, Dwight, Hugh McIntosh, Chatsworth, and Leo Digal, Saunemin. Dr. Julius Richmond, associate professor of pediatrics, University of Illinois College of Medicine, Chicago, addressed the society at this meeting on recent advances in pediatrics.

MACON COUNTY

Society News.—"Endometriosis" was the subject of Dr. John I. Brewer, associate professor of medicine, Northwestern University Medical School, Chicago, before the Macon County Medical Society at its meeting at the St. Nicholas Hotel, Decatur, February 24.

Warren Burgett Honored.—At a joint meeting of the Piatt County and Macon County Medical Societies in Decatur, January 20, the Fifty Year Medal of the Illinois State Medical Society was presented to Dr. Warren E. Burgett, Bement. The thirteen members of the Piatt County Medical Society were guests at this meeting. Dr. Lawrence F. Greene, Rochester, Minn., was the guest speaker on "The Clinical Aspects of Gross Hematuria."

Changes in Committees.—Following a plan to maintain year to year continuity, Dr. Fred Ferguson, president, Macon County Medical Society, announced the 1948 make-up of the standing committees of the society. In most cases this involves the appointment of the senior member of the committee to replace the chairman who customarily retires after one year of service. In certain instances the qualifications of the leading member were such that he was reappointed, as in the case of Dr. P. A. Steele, city health commissioner, who is chairman of the public health committee. Dr. Arthur C. Simon succeeds Dr. C. Martin Wood as chairman of the committee of censors and ethical relations. Dr. Arthur F. Goodyear replaces Dr. Dwight A. Pence as head of the professional policies committee. Dr. Milton E. Rose takes on Dr. Irving H. Neece's job as chairman of the public relations committee. Dr. R. Zink Sanders follows Dr. Clayton E. Woodward on the tax-supported medical services committee. Dr. John S. Kapernick follows Dr. C. Elliott Bell, the 1947 chairman of the program committee. One innovation is the addition of two members to the professional policies committee. Of these, Dr. Arthur L. Ennis is advisor for the cancer control program and will be responsible to the committee for the operation of the cancer diagnostic clinic. The cancer advisory committee is thus eliminated. Dr. Herbert J. Bavor is advisor for the blood bank program. Dr. Ferguson's appointments represent a further enlistment of the society's new blood, in that at least five appointees are among the recent younger members of the local organization. Officers of the Macon County Medical Society are Doctors Fred G. Ferguson, president; Vernon M. Long, president-elect; Maurice D. Murfin, secretary; Chester T. Johnson, treasurer; Lee O. Frech, delegate, and Arthur F. Goodyear, alternate.

MADISON COUNTY

Society News.—Dr. J. William Thompson, St. Louis, discussed "Peptic Ulcers" before the Madison County Medical Society in Alton recently.

Personal.—Dr. J. M. Alford is the new resident physician at Alton Memorial Hospital.

MARION COUNTY

Society News.—Dr. H. E. Wilson addressed the Marion County Medical Society recently on "Horse and Buggy Days in Marion County Medicine." A movie on "Sex Hormones" was also shown. Officers of the society include Dr. Harry E. Ryan, Centralia, president; Dr. M. T. Horsman, Salem, vice president, and Dr. Max Hirschfelder, secretary-treasurer.

PEORIA COUNTY

Dr. Thiehoff Resigns as Health Officer.—Dr. E. B. Thiehoff, commissioner of health of Peoria since Jan. 1, 1946, has resigned, effective about April 1 and pending the selection of a successor, according to the Peoria Journal-Transcript. Dr. Thiehoff's resignation was brought about because of climatic conditions in Peoria affecting Mrs. Thiehoff's health, it was reported.

Society News.—Dr. Ralph A. Reis, Chicago, addressed the Peoria Medical Society, February 17, at the Pere Marquette Hotel, Peoria, on "The Use and Abuse of Estrogenic Substances."

RANDOLPH COUNTY

Society News.—Dr. L. T. Mattingly, Red Bud, was elected president of the Randolph County Medical Society at its meeting in Chester recently; Dr. E. R. Mays, Chester, is vice president, and Dr. W. W. Fullerton, Steeleville, is secretary-treasurer. The

board of censors are Dr. A. C. Scott, Evansville, Dr. J. O. Hoffman, Chester, and Dr. Ralph Kuhlman, Menard.

ROCK ISLAND COUNTY

Society News.—Dr. Paul Holinger, associate professor of otolaryngology, University of Illinois College of Medicine, Chicago, addressed the Rock Island County Medical Society at the Rock Island County Tuberculosis Sanitarium, March 9.—Dr. C. Wesley Eisele, Chicago, addressed the Rock Island County Medical Society, February 10, at the St. Anthony's Hospital, Rock Island, on "Evaluation of Diagnostic Methods in Brucellosis."

SANGAMON COUNTY

Personal.—Dr. Ralph W. E. Wise recently opened offices in Suite 407 United Mine Workers Building, Springfield. His practice is devoted to dermatology and syphilology.

WINNEBAGO COUNTY

Symposium on Heart Disease.—The first annual symposium on heart disease was presented Wednesday, February 11 at the Nelson Hotel, Rockford. Speakers included Dr. H. W. Vanlandingham, Rockford, "The Role of Roentgenology and Heart Disease"; Dr. John W. Sheagren, Rockford, "The Significance of Heart Murmurs"; Dr. Lewis W. Woodruff, Joliet, "The Treatment of Common Cardiac Arrhythmias"; Dr. Harry A. Warren, Peoria, "Experience with Rheumatic Fever and Rheumatic Heart Disease"; Dr. H. Dick Countryman, Rockford, "The Heart Patient as a Surgical and Obstetric Risk"; and Dr. G. K. Fenn, Chicago, discussed "Thyroid and Less Common Forms of Heart Disease." A round table was conducted by Dr. G. K. Fenn and Dr. Thomas J. Dry, Rochester, Minn. Speakers on the evening program were Dr. Harry A. Durkin, Peoria, and Dr. Thomas J. Dry, Rochester.

GENERAL

Northwestern Annual Faculty-Alumni Reunion.—The annual Faculty-Alumni Reunion dinner will be held this year on Saturday evening, May 8, at the Furniture Club of America, 666 Lake Shore Drive, Chicago, at 6 p.m. The cost of the dinner is $6 per plate, and reservations must be made not later than May 4 at the Medical Alumni Office, 303 East Chicago Avenue, Chicago, Room 796; telephone: Superior 4500, extension 212. The five year classes of 1903, 1908, 1913, 1923, 1928, 1933, 1938, and 1943 should plan special reunions and reserve tables at this dinner. The honored guests will be the fifty and fifty-five year classes, 1898 and 1893, and the graduating class of 1948. Special professional entertainment is being planned, and there will be no speeches. Dr. Frederick W. Merrifield is president of the Northwestern University Alumni Association.

Spinal Cord Seminar at Hines.—Nine faculty members of the Northwestern University medical school participated in the midwestern sectional meeting and seminar on spinal cord injuries of the American Congress of Physical Medicine on February 26—27 at the Veterans Administration Hospital, Hines, Ill.

Dr. Louis B. Newman, associate in physical medicine at Northwestern, who is also chairman of the midwestern section and chief of the physical medicine rehabilitation service at Hines, was in charge of orientation the first morning and in the afternoon lectured and demonstrated physical medicine rehabilitation of patients with spinal cord injuries.

Others of the Northwestern faculty and the subjects of their lectures at the seminar were: Dr. Loyal Davis, professor of surgery and chairman of the department, neurosurgical aspect; Dr. Lewis J. Pollock, professor of nervous and mental diseases and chairman of the department, neurological aspect; Dr. Knowlton E. Barber, assistant professor of urology, genitourinary aspect; Dr. H. Ivan Sippy, assistant professor of medicine, medical management; Dr. Leo F. Miller, associate in bone and joint surgery, orthopedic problems, and Dr. Joseph G. Kostrubala, consultant in plastic surgery, plastic surgery. Dr. Harold A. Arieff, associate in the department of nervous and mental diseases, will lecture on electrodiagnosis.

District Meeting.—The Iowa and Illinois Central District Medical Association will be addressed in Davenport, May 26, by Dr. Arthur F. Abt, Chicago, on "The Diagnosis and Pitfalls in Diagnosis of Poliomyelitis." Other speakers will be Dr. Fremont Chandler, Chicago, on "Recent Advancement in the Surgical Treatment of Low Back Pain", and Dr. C. Charles Burlingame, Hartford, Conn.

HEALTH DEPARTMENT ACTIVITIES

Distribution of Biologic Materials.—Reaching into every county of Illinois, the state department of public health distributed sufficient biologic preparations to prevent more than one and one-half million cases of communicable diseases during 1947, Dr. Roland R. Cross, director, reported today.

More preventives were distributed during the year for the control of smallpox than for any other disease. Figures from the report show that sufficient vaccine was distributed to protect almost 935,000 persons against smallpox.

"The results of the widespread vaccination are revealed in morbidity reports showing that only two cases of smallpox were recorded in Illinois last year, the lowest reported prevalence in the history of the State," Dr. Cross said.

Significant also in the report is the large volume of diphtheria and whooping cough preventives. Toxoid enough to prevent diphtheria in more than 200,000 persons and vaccine enough to inoculate more than 100,000 children against whooping cough were distributed during the 12 months. Dr. Cross pointed out that the prevalence of these two diseases also declined sharply in Illinois last year.

Other preventives distributed by the department include vaccine sufficient to protect more than 120,000 persons against typhoid fever and to prevent rabies in more than 4,000.

Noteworthy also was the widespread distribution of testing materials including toxin sufficient to give the Schick test to 345,000 persons to determine susceptibility to diphtheria, and tuberculin enough to test more than 125,000 people.

The total volume of biologics for preventive, curative and testing purposes was distributed last year at an aggregate cost of $218,815, or approximately two and one-half cents for each person in Illinois.

Decrease in Communicable Diseases.—Substantial gains against communicable diseases in Illinois are revealed in morbidity reports for 1947 released January 22 by Dr. Roland R. Cross, State Director of Public Health. The reports show that about 12 in each 1,000 of the State's inhabitants suffered an attack of one or another of the notifiable diseases during the 12-month period. This represents a reduction of close to 25 per cent from the previous year when about 16 out of every 1,000 of the population were attacked. Significant is the fact that venereal diseases were the greatest cause of illness during 1947, being responsible for almost one-half of all the cases reported. Gonorrhea, with 32,646 cases, headed the list of reports; and syphilis, with 19,459 cases, was in second place. These figures are below venereal disease case reports for 1946 by about 16 per cent. Noteworthy also is the fact that smallpox fell to the lowest reported prevalence on record. Only 2 cases were reported as compared with 6 cases in 1946. "The widespread vaccination program in this State, stimulated by an outbreak of small pox in New York City, undoubtedly contributed to this low record," Dr. Cross stated. He also cited figures showing that only 10 years ago, in 1937, Illinois recorded more than 900 cases of smallpox. Diphtheria case reports totaled 174 as compared with 469 in 1946; and whooping cough caused 4,797 cases of illness in 1947 as against 5,431 in the previous year. Dr. Cross emphasized the fact that diphtheria and whooping cough are "preventable" and he strongly urged parents to have their children immunized against these diseases. Pneumonia, with 4,509 cases, was much less prevalent in 1947; and scarlet fever, with 4,059 cases, reached its lowest incidence ever recorded in Illinois. Tuberculosis increased in the number of cases reported, 7,915 against 7,431 in 1946. Dr. Cross attributed this increase to "effective case-finding efforts." He pointed out that through the facilities of the mobile x-ray units hundreds of previously unsuspected early cases of tuberculosis were detected. The reports also show that typhoid fever climbed slightly last year, 137 against 106 cases reported in 1946.

New Diagnostic Clinic.—Dr. Roland R. Cross, Illinois director of public health, announced February 5 the opening of a state-aided cancer diagnostic clinic at Quincy. This brings to 18 the number of such centers now operating in Illinois. Known as the Adams county cancer diagnostic clinic, the new center is located in the offices of the county health department in the Majestic building. Regular clinic sessions will be held the first and third Monday of each month beginning at 7 o'clock in the evening. The new clinic under the direction of Dr. Kent W. Barber, with Dr. Frank Cohen, serving as pathologist and Dr. Harold Swanberg, Dr. Steven Casper and Dr. Gordon M. Perisho alternating as radiologist. The cancer diagnostic clinics maintained by the state department of public health provide free examination and consultation service to all suspected cancer patients referred by private physicians of Illinois.

In addition to the new clinic at Quincy, other centers are located at Bloomington, Canton, Champaign, Chicago, Danville, DuQuoin, East St. Louis, Elgin, Evanston, Herrin, Jacksonville, Ottawa, Peoria, Rockford, Savanna, Springfield, and Waukegan.

Accidents Increase.—Ranking fifth as a cause of death in Illinois, accidents of one form or another took the lives of 4,803 persons during the first 11 months of 1947, according to mortality statistics released March 3 by Dr. Roland R. Cross, state director of public health. This is a slight increase over the comparable period of 1946, when 4,731 accidental deaths were recorded in the State.

Both occupational accidents and accidents in the home increased sharply during the 11-month period. The report shows that occupational accidents were responsible for 593 fatalities last year, as compared with 467 for the corresponding months of 1946, while home accidents accounted for 1,585 deaths as against 1,556 in the 1946 period.

Dr. Cross pointed out that 106 of the 1,585 accidental deaths occurring in the home were among babies under one year of age. In emphasizing the seriousness of this situation he cited the fact that during the first 11 months of last year "more infants died from accidents in the home than died from diphtheria, measles, meningitis, scarlet fever and whooping cough combined."

Public accidents declined from 1,252 during the first 11 months of 1946 to 1,180 in the comparable period of last year. "Fewer deaths from falls in public places and from streetcar and railroad accidents accounted for two-thirds of this decrease," Dr. Cross said.

Diabetes Increases.—That diabetes is on the increase in Illinois is evidenced by mortality statistics released recently by Dr. Roland R. Cross, state director of public health.

With 2,284 deaths reported up to November 1 of last year, mortality from diabetes was at a rate of 33.4 per 100,000 of the population as against a rate of 31.5 for the comparable period of 1946, when 2,103 deaths were reported.

Despite the fact that insulin for controlling diabetes was discovered as early as 1922, the trend of mortality from the disease in this State has been steadily upward during the last two decades, Dr. Cross said. In 1926 this disease was charged with 1,581 deaths. Ten years later in 1936 the mortality figure reached 2,293 and soared to 2,541 in 1946. Today diabetes ranks eighth as a cause of mortality in Illinois.

Even though the death rate is tending upward, Dr. Cross pointed out that "diabetic patients are living considerably longer today than they did in earlier years." Of the 2,541 deaths recorded by the state department of pubilc health in 1946, 964 occurred among persons between the ages of 45 and 64, and 1,436 were among those 65 years of age or older. He emphasized that overeating and insufficient exercise are dominant factors in bringing on the disease in older people.

"Diabetes is controllable," Dr. Cross concluded, "but the control depends largely on the individual. With even a little understanding of the causes and of the treatment almost anyone can take steps to spare himself from the developments of a diabetic condition, or at least to make sure that he will live with the disease and not succumb to it."

"For The Common Good"

As a courtesy to Dr. James Dunn, secretary of the Iowa-Illinois Central District Medical Association, the Educational Committee arranged for the appearance of Dr. Arthur F. Abt before its meeting in Davenport, May 26. Dr. Abt will discuss "Diagnosis, and Pitfalls in Diagnosis of Poliomyelitis."

Two hundred copies of "Doctors and Horses", pamphlet of the Committee on Rural Medical Service and Committee on Medical Service and Public Relations, were sent on request to the American Public Health Association in New York, March 5.

Two hundred copies also were sent to the Louisiana State Medical Society, on request, for distribution at its annual meeting in April.

The Order of St. Francis recently sent a request that 151 schools under its jurisdiction be placed on the mailing list for HEALTH TALK, released by the Educational Committee.

Arthur Steinhaus, Ph.D., of George Williams College, was a visitor in the Chicago Office of the Illinois State Medical Society, March 10.

Lectures Arranged Through the Educational Committee of the Illinois State Medical Society; Dr. Charles P. Blair, Monmouth, Chairman:

Film for Dr. John B. Suino, La Salle, to accompany talk on cancer before the Kiwanis Club, March 2.

Dr. Edward N. Zinschlag, Mattoon, Salem Woman's Club and Lion's Club, March 9, on "The Cancer Outlook Today."

Mr. John Mannix, head of John Marshall Insurance Company, Chicago, Kiwanis Club of the North Shore, Chicago, "Compulsory Health Insurance."

Mr. John Neal, executive secretary, Committee on Medical Service and Public Relations, Illinois State Medical Society, Woman's Auxiliary, Aux Plaines Branch, Chicago Medical Society March 19, "American Medicine at the Capitol."

Film "When Bobby Goes to School," Hawthorne Parent-Teacher association, in Chicago, April 13.

Dr. Edwin Hirsch, Dr. Bertha Shafer and Dr. Franklin Fitch, all of Chicago, Y.W.C.A. and Y.M.C.A. in Naperville, April 14, morning and afternoon, on "Sex: Pre-Marital and Marital Aspects."

Dr. Harry H. Boyle, Chicago, Mason School Parent-Teacher Association in Chicago, April 20, on "Rheumatic Fever."

Dr. Alfred D. Biggs, Chicago, Mason School Parent-Teacher Association, April 20, on "Prevention of Tuberculosis."

Dr. Peter T. Gray, Sterling, Mendota Woman's Club, May 3, on "Superstitions About Health."

Film "When Bobby Goes to School", Alexander Hamilton Parent-Teacher Association, May 10, in Chicago.

Lectures Arranged Through the Scientific Service Committee of the Illinois State Medical Society; Dr. Robert S. Berghoff, Chicago, Chairman:

Drs. J. Peerman Nesselrod, Evanston, and Dr. Jay M. Garner, Winnetka, Winnebago County Medical Society, Rockford, March 9, colored movies and slides on the rectum and sigmoid colon and a lecture on "Common Ano-Rectal Diseases."

Dr. James W. Sours, Peoria, LaSalle County Medical Society in LaSalle, March 11, on "Diabetes."

Dr. Myron M. Hipskind, Chicago, Kankakee County Medical Society in Kankakee, March 12, on "Management of Ear, Nose and Throat Problems."

Dr. Willard O. Thompson, Chicago, Vermilion County Medical Society in Danville, April 6, on "Office Procedure in Diagnosis and Treatment of Endocrinopathy."

Dr. Gerald M. Cline, Bloomington, Clinic on Pediatrics in Danville, April 15.

Dr. George A. Hellmuth, Chicago, McDonough County Medical Society, in Macomb, April 23, "Treatment of Congestive Heart Failure."

Dr. Robert McElvenny, Chicago, Vermilion County Medical Society, in Danville, May 4, on "Low Back Pain."

Dr. John W. Ferrin, Chicago, Will-Grundy County Medical Society, in Joliet, May 13, on "Hematuria."

Dr. Harry M. Hedge, Chicago, Kankakee County Medical Society in Kankakee, May 14, on "Dermatology and Syphilis."

Dr. C. H. Stubenrauch Jr., Peoria, Logan County Medical Society in Lincoln, May 20, on "Contact Dermatitis."

Dr. Ellis H. Harris, Winnetka, Will-Grundy County Medical Society in Joliet, May 27, on "Infant Feeding."

Conferences Arranged Through the Postgraduate Education Committee of the Illinois State Medical Society; Dr. Robert S. Berghoff, Chicago, Chairman:

For the Seventh Councilor District including the counties of Piatt, Moultrie, Shelby, Christian, Fayette, Effingham, Bond, Clinton, Marion, Clay and Macon at the St. Nicholas Hotel, Decatur, March 25. The Macon County Medical Society was host at a luncheon and Dr. Fred G. Ferguson, Decatur, presided. The following Chicago physicians participated:

George V. LeRoy, "Recent Advances in Hematology."

Robert McElvenny, "Hip Fractures."

Ralph E. Dolkart, "Medical Aspects of Biliary Tract Disease."

Paul Holinger, "Bronchogenic Carcinoma."

Chauncey C. Maher, "Auricular Fibrillation."

Percy E. Hopkins, "Illinois Prepayment Plan."

James H. Hutton, "Public Relations."

J. P. Nesselrod, Evanston, "Ano-Rectal Disease."

The evening meeting was addressed by Marjorie Shearon, Ph.D., The Shearon Medical Legislative Service, Washington, D. C., on "American Medicine and the Political Scene." Dr. Shearon appeared under the joint auspices of the Decatur District Dental Society and the Illinois State Medical Society.

For the Eleventh Councilor District, comprising the counties of DuPage, Kendall, Will, Grundy, Kankakee, Iroquois and Ford, at the Kankakee Country Club, April 1, with Dr. E. S. Hamilton, Kankakee, presiding. The Kankakee County Medical Society was host at a luncheon.

Chicago physicians participated in the following program:

Howard L. Alt, "What is New in Hematology?"

Jesse Hofer, "Rheumatic Heart Disease in Children."

Peter Rosi, "The Role of Vagotomy Treatment in Peptic Ulcer."

Archibald Hoyne, "The Exanthemata."

Percy E. Hopkins, "Illinois Prepayment Medical Care Plan."

James H. Hutton, "Public Relations."

Roland R. Greene, "Female Endocrines."

Frank Dickinson, Ph.D., "Is Medical Care Expensive?"

John Van Prohaska, "Surgical Management of Carcinoma of the Large Bowel and Rectum."

Dr. Arthur J. Atkinson, Chicago, was the evening speaker on "Physiology of Digestion."

For the Eighth Councilor District, including counties of Champaign, Vermilion, Douglas, Edgar, Coles, Cumberland, Clark, Jasper, Crawford, Richland and Lawrence, with Dr. Harlan English, Danville, Councilor, presiding.

The Chicago physicians participating in the program were:

Leon Unger, "Use of Drugs in Allergic Conditions."

Chester Coggeshall, "Diabetic Management."

Henry Poncher, "Behavior Problems of Children."

Leo P. Sweeney, "Eye Conditions Seen by the General Practitioner."

Percy E. Hopkins, "Illinois Prepayment Medical Care Plan."

James H. Hutton, "Public Relations."

Hugo C. Baum, "Vaginitis."

Harry M. Hedge, "Common Skin Diseases", with kodachrome slides.

Ralph Reis, "Endocrine Gynecology."

Carlo S. Scuderi, "What to Do with Low Back Pain."

Dr. Arkell M. Vaughn, as the evening speaker, showed a new movie on "Salphenous vein ligation with multiple retrograde ligation and phlebectomy with aid of malleable intraluminal gyide." In addition to the movie, Dr. Vaughn gave a fifteen minute discussion on "Varicose Veins."

DEATHS

Archibald John Alcorn, Chicago, who graduated at the College of Physicians and Surgeons, School of Medicine of the University of Illinois in 1900, died recently, aged 80.

Eugene D. Bergeron, Kankakee, who graduated at Northwestern University Medical School in 1881, died February 11, aged 88.

Midian O. Bousfield, Chicago, who graduated at Northwestern University Medical School in 1909, died in February, following a heart attack. He was 62 years of age.

WILLIAM F. BRINEY, Chicago, who graduated at Bennett College of Eclectic Medicine and Surgery in 1897, died February 14, aged 79.

TIMOTHY L. CHIASSON, Neponset, who graduated at Loyola University School of Medicine in 1916, died Dec. 6, 1947, aged 60, of coronary heart disease. He was an examining physician for the county selective service board during World War II and a member of the local board of health.

FREDERICK JOSEPH CICOTTE, Chicago, who graduated at Loyola University School of Medicine in 1916, died February 21, aged 67.

FRANK ELMER DAVID, Chicago, who graduated at the College of Physicians and Surgeons of Chicago, School of Medicine of the University of Illinois in 1904, died Dec. 5, 1947, aged 76, of cerebral hemorrhage and bronchopneumonia. He was also a dentist.

SPENCER C. DICKERSON, Chicago, who graduated at Rush Medical College in 1901, died February 25, aged 77, of a heart ailment. He had been senior ophthalmologist and otolaryngologist at Provident Hospital; during World War I he served as a major and 6 years later retired as a brigadier general.

ERNST GOLDMANN, Carlock, who graduated at Schlesische-Friedrich-Wilhelms-Universität Medizinische Fakultät, Breslau, Prussia, in 1923, died February 18, aged 49. He practiced medicine in Germany for 15 years and in Carlock 7 years.

ARTHUR EDISON GAMMAGE, Rio, who graduated at Bennett College of Eclectic Medicine and Surgery in 1906, died in Fort Lauderdale, Fla., Dec. 31, 1947, aged 66. From 1919 to 1923 was superintendent of the Municipal Contagious Disease Hospital in Chicago, where he was on the staffs of the Illinois Masonic and Edgewater Hospitals.

DAUSA DOW HARTWELL, Marion, who graduated at St. Louis College of Physicians and Surgeons in 1901, died Nov. 18, 1947, aged 69, of cerebral hemorrhage.

RALPH DRESDEN ROBINSON, Mount Vernon, who graduated at University of Tennessee College of Medicine, Memphis, 1935, died in the Veterans Administration Hospital, Topeka, Kan., recently, aged 38, of diabetes mellitus.

HARRY ALFRED TERRY, Tampico, who graduated at Washington University School of Medicine, St. Louis, in 1904, died recently, aged 69.

JOHN ROBERT TOBIN, Elgin, who graduated at Rush Medical College in 1901, died February 23, aged 71. He was chief of the medical staff of St. Joseph's Hospital, Elgin.

MOTHERS WARNED AGAINST CHIPPING GLASS IN OPENING BABY'S FOOD

Glass baby food containers may be dangerous if not opened properly, John D. Steele Jr., M.D., from the Milwaukee Children's Hospital, warns in the February 21 issue of *The Journal of the American Medical Association*. He reports the cases of two small children who became seriously ill after having swallowed glass chips from such containers which were inadvertently given to them in their food.

In the first case the glass was finally located in the esophagus and removed. In the second case it could not be discovered, and it was concluded that it had passed through the gastrointestinal tract.

In both cases the child's mother had pried the metal lid off a glass container of baby food and given the contents of the jar to the child before noticing that any glass had been chipped off the rim of the container.

"In both instances it is probable that the breakage of the containers was due to the improper exertion of force at one particular point in prying the covers off the vacuum-packed glass containers," Dr. Steele writes. "However, it is probably not generally realized by the consumer that such force should be exerted at more than one point about the rim of the container, and that directions for opening such containers, even though printed in extremely small type, could well be followed if similar accidents are to be avoided. Careful inspection by mothers of the rims of such containers after opening should be a routine procedure.

"The importance of the early recognition of the complications of such accidents by physicians is obvious. Particular attention should be paid to the discovery of residual defects in baby food containers in cases where the ingestion of a foreign body is suspected."

SURGERY RELIEVES SOME TYPES OF SEVERE ONE-SIDED HEADACHE

Simple Operation to divide Sympathetic Pain Fibers said to Bring Lasting Relief where Drugs Fail

Surgical treatment should be considered for persistent and severe one-sided headaches after drugs or other conservative measures have failed to bring relief, according to Walter G. Haynes Jr., M.D., Birmingham, Ala., writing in the February 21 issue of *The Journal of the American Medical Association.*

Dr. Haynes reports that 87 per cent of the 47 patients to whom he has given such treatment have received lasting relief. Conservative treatment afforded relief in only 32 per cent of 25 other cases.

The pure migraine headache is not the type for which he recommends surgery, although the symptoms often resemble those of migraine. He classifies his patients' headaches as follows:

1. Severe pain in which the blood vessels in one of the temples are constricted.

2. Pain that travels up over a nerve in the back of the skull, then along the arteries of one of the temples and the arteries close to the temple, on the inside of the skull.

3. Inflammation of the nerve roots in the neck due to mechanical pressure on a nerve in the back of the skull.

Dr. Haynes believes that all three types of headache are caused by sympathetic pain fibers accompanying the artery which starts at about the level of the neck and gives off many branches to the face and skull. (The areas of pain described are covered by these branches.)

Surgical treatment consists of cutting out a part of the offending arterial branches or, in the third type of headache, removing part of the sensitive nerve in the back of the skull. The sympathetic pain fibers are thus kept divided.

"Neither of these procedures is hazardous," Dr. Haynes writes, "and in trained hands they do not constitute any danger to the patient's life or allow any untoward sequelae. There have not been any fatalities in this series."

DR. H. C. BALLENGER NAMED CHAIRMAN OF OTOLARYNGOLOGY

Dr. Howard C. Ballenger has been appointed professor of otolaryngology and chairman of the department in the Northwestern University medical school, Dr. J. Roscoe Miller, dean, announced recently. Dr. Ballenger, who has been a member of the faculty since 1930, succeeds Dr. G. Gordon Wilson, who retired.

Dr. Ballenger was educated at Earthan College, Richmond, Ind., and the University of Michigan, and received his doctor's degree in medicine from the University of Indiana. Formerly a consultant to the United States Public Health Service, he is a member of several societies, including the American Medical Association, the American College of Surgeons, the American Academy of Ophthalmology and Otolaryngology, the American Laryngological, Rhinological and Otological Society, and the Chicago Laryngological and Otological Society, of which he is past president.

He is the author of numerous articles and books, including several textbooks in the field of diseases of the eye, ear, nose and throat.

The most important of all case-finding agencies in the fight against tuberculosis continues to be the practicing physicians. It is almost always true that the family physician has the first opportunity not only to ascertain the presence of active pulmonary tuberculosis but also to give battle for the cure of the afflicted and the safeguarding of the other members of the family from the tubercle bacillus. It is the family physician to whom most people go when troubled by signs of ill health. Comm. on Tbc., N.H. Med. Soc., N.E. Jour. Med., Oct. 23, 1947.



SUSTAINED HYPNOSIS
NEED NOT BE DELAYED

Fast-acting barbiturates have an effect of short duration; those which act more slowly are more prolonged in effect.

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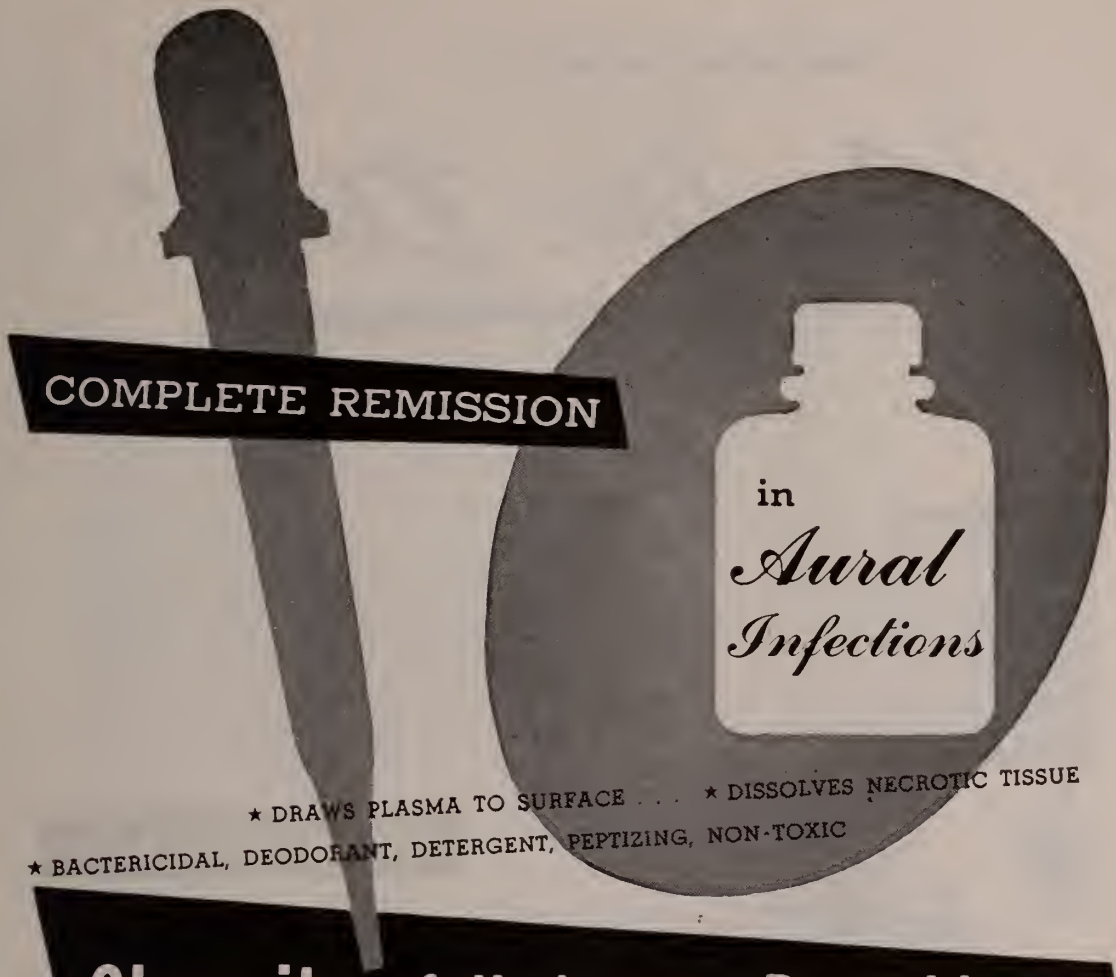
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J. A. Ph., A., (Sc. Ed.) 35:304, 1946.
Literature on request.

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Physical Medicine Abstracts

John S. Coulter, M.D.

POLYDIURNAL ELECTRIC SHOCK TREATMENT IN MENTAL DISORDERS

Edward A. Tyler, M.D. and
Hans Lowenbach, M.D., Durham
In THE NORTH CAROLINA MEDICAL JOURNAL, 8:9:581
September, 1947

Polydiurnal electric shock — that is, more than one shock per day — was given to 35 psychotic patients. Four major convulsions per day for as many as three days are not more dangerous than the conventional form of electric shock treatment. After following all of these patients for periods varing from one to five years, we find no significant residual impairment of function in intellectual capacity nor any evidence of localized brain damage. The number of patients who recovered was not appreciably different from that found after other forms of shock therapy, and no certain relationship seems to exist between probability of recovery and the pattern with which the shocks are given. However, the period of hospital treatment can be shortened quite considerably by a method of therapy no more dangerous than other shock therapies and requiring less trained professional personnel than deep insulin shock treatment.

CARE OF THE LONG TERM PATIENT REQUIRES CAREFUL PLANNING

David Littauer, M.D., Administrator,
Menorah Hospital, Kansas City, Mo.
In MODERN HOSPITAL, 69:3:63-64
September, 1947

Physical Therapy Department

Certain groups of long term patients, particularly those suffering from arthritis, spastic or flaccid paralysis or surgical conditions of the bones, joints and muscles, require extensive therapy by physical means.

This implies a more elaborate department than is normally required in the acute general hospital. A small gymnasium must be provided. In addition to the arm and leg whirlpools and the Hubbard tank, hydrotherapy must include a walk-about pool, with its movable hand rails and crane and sling.

Physical therapy for the convalescent recovering from an acute illness or operation is normally short-lived and simple and is directed by the registered physical therapist on the prescription of the attending physician or surgeon. The long term patient, however, is frequently a baffling clinical problem. In such cases, the medical scientist must seek the advice of a specialist in the modalities of physical therapy who also knows the physiology and pathology of the condition to be treated. Somewhere along the line of planning, therefore, a decision may have to be made in favor of a doctor of physical medicine over a registered technician.

Occupational Therapy: This department should be large enough to offer a variety of types of work to the long term patient, whether he can come to the workroom or is confined to his bed. Looming of rugs, working with leather, bookbinding, painting, carpentry and wood-working are activities which can occupy a patient's time, enable him to create something useful and in many instances serve as therapeutic devices to exercise atrophied or spastic muscles and stiffened joints. In larger hospitals an occupational therapy department could be combined with physical therapy into one department of rehabilitation.

(*Continued on page* 48)

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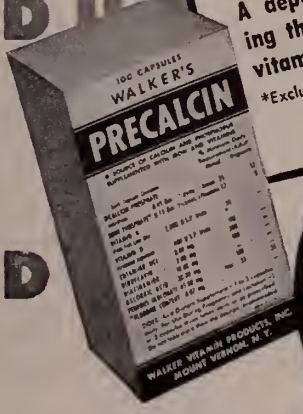
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PHYSICAL MEDICINE (Continued)

EARLY AMBULATION IN THE PRACTICE OF OBSTETRICS

E. Cullen Bryant, M.D., Toronto, Ont.

In THE CANADIAN MEDICAL ASSOCIATION JOURNAL 57:3:259
September, 1947

If there is not complete agreement amongst all observants, those that have tried early ambulation are convinced that it has many advantages. The functions of the body, both in health and disease, depend upon efficient respiration, circulation, digestion, and elimination of wastes. It is known that these functions are temporarily disturbed as a result of confinement, anaesthetic, prolonged labour, and prolonged immobility in bed. Lack of exercise of the chest muscles and impaired pulmonary metabolism leads to lessened vital capacity, circulation stagnation, shock, thrombosis, phlebitis, and embolism. Intestinal and muscular atony from inactivity prolongs the period of recovery and undermines the patient's general health and depresses her morale.

Workers, especially those in Boston, have shown that the vital capacity is greatly reduced with bed rest and it takes considerable time to get back to normal, while if one institutes early ambulation, the vital capacity comes back to normal much more quickly and thus the normal body functions are at the same time restored .

THE OPTIMUM REST-EXERCISE BALANCE IN THE TREATMENT OF RHEUMATOID ARTHRITIS

George Morris Piersol, M.D., M.A.C.P. and
Joseph Lee Hollander, M.D., F.A.C.P.
Philadelphia

In ARCHIVES OF PHYSICAL MEDICINE, 28:8:505

Drug therapy has its place in the therapeutic regimen, and orthopedic surgery is invaluable in correcting late deformities; but the importance of prevention and correction of deformities by appropriate physical means and exercise before they become permanent cannot be overemphasized.

Exercise must be carried out frequently by every arthritic patient, regardless of the stage or activity of his disease. The amount and type of exercise must be suited to the degree of disability of the patient. The maximum amount of exercise possible without aggravation of the disease process is counterbalanced by rest periods sufficient to prevent fatigue. This is the optimum exercise-rest balance.

Rest has been so overemphasized and exercise so cautiously advocated that the usual result is an over-rested and underexercised patient in whom muscle atrophy and contractures develop. We believe that exercise in the management of arthritis is so important that it deserves additional emphasis. As a patient once aptly put it, when commenting on our regimen, "The exercise is hard, but the rest is easy."

THE CAUSES AND TREATMENT OF SCIATIC PAIN

Charles Gray, B.Sc., M.B., Ch.B., F.R.C.S.,
London, England

In SURGERY GYNECOLOGY AND OBSTETRICS: 85:5: 431-2-33-34
November, 1947

PALLIATIVE TREATMENT

Complete rest in bed. The patient is allowed to lie in whatever position he finds most comfortable. The best plan is to support the patient with pillows in whatever position he obtains most relief from pain.

Radiant heat or diathermy may be applied daily. Massage should not be used. Light massage is useless, and deep massage is too painful.

Stretching the nerve. While the patient is anesthetized, the sciatic nerve is stretched by flexion of the hip, the knee being held in full extension and the ankle in full dorsiflexion. The flexion of the hip should be forced as far as possible, short of dislocating the joint. "Adhesions" may be heard to give way in the thigh during this maneuver.

Manipulation of the spine is performed under pentothal anesthesia. If combined with epidural injection it should be done first, while the relaxation is complete. The method described by Bankart is used.

There are four movements to be carried out, namely:

1. Flexion. The surgeon stands on the right hand side of the supine patient, and places his right arm under the patient's knees. He lifts the legs up, flexing the hips and knees, and carries the knees upward until they are pressed on the patient's chest. The fullest possible flexion of the lumbar spine is thus obtained.

2. Rotation to the left. The patient lies on his right side. The left leg hangs over the side

(*Continued on page* 50)

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Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154; Loryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60; Brac. Soc. Exp. Biol. and Med., 1934, 32-241; N. Y. State Journ. Med., Vol. 35, 6-1-25, No. 11; 590-592.

PHYSICAL MEDICINE (Continued)

of the table, and the left arm is placed behind the patient's back. The surgeon leans with his right forearm on the left iliac crest, while with his left hand he grasps the left shoulder. A forcible rotatory movement of the sacroiliac joint is produced by pulling the iliac crest forward and pushing the shoulder backward.

3. Rotation to the right. The surgeon goes to the other side of the table and the patient is turned on to his left side. The maneuver described above is repeated.

4. Extension. The patient is turned on his face. With his left arm the surgeon lifts the patient's legs until they are almost vertical, and with his right hand presses downward over the lumbar spine, extending it as much as possible.

The manipulation is followed by a course of spinal exercises, radiant heat, and deep massage.

CONSERVATIVE TREATMENT OF SEMILUNAR CARTILAGE INJURIES OF THE KNEE JOINT

Nelson J. Howard, M.D., San Francisco, Calif.

In THE AMERICAN JOURNAL OF SURGERY:
LXXIV:5:647:50
November, 1947

In the beginning, our treatment of the patient with semilunar cartilage injury consisted of reduction of the cartilage by manipulative measures, if possible, aspiration of joint fluid if the joint was tense and distended, application of a very heavy voluminous sheet wadding bandage, held by elastic bandaging, and the use of crutches or a cane, advising the patient at the same time to be recumbent as much as possible. In those patients in whom reduction of the slipped meniscus could not be carried out by manipulation were placed in traction in bed. It soon became evident that patients so treated absorbed the joint effusion much quicker, the cartilage was less likely to displace after reduction and their convalescence less prolonged. At first, sheet wadding and elastic bandages were used as the only immobilization after traction reduction. This had to be reapplied constantly. A circular unpadded plaster splint, reaching from the ankle to the upper third of the thigh, was found to be the most satisfactory form of immobilization. Slipping and shifting of the splint was prevented by adhesive strips the length of the leg beneath the cast, turned back and incorporated into the plaster above the malleoli.

Conclusion

1. In a small carefully studied series of traumatic knee joint lesions, diagnosed as semilunar cartilage injuries, 82 per cent (forty-six patients) were operated upon.

2. The treatment advised is immediate hospitalization, manipulative or constant adhesive traction reduction of the locked joint, aspiration of the joint, if necessary, and immobilization of the injured knee by circular plaster splint.

3. It is shown that the earlier complete rest of injured joint is enforced, the more likely is the success of the conservative treatment, and conversely, the longer the delay in instituting treatment, the more certain will operative intervention be required.

4. Pathologic, anatomic studies of the injured meniscus in patients and experimental work on animals reported by many observers provide a sound logical basis for the success of conservative therapy.

ULTRAVIOLET AIR DISINFECTION

William T. Anderson, Jr., Ph.D., Newark, N.J.

In ARCHIVES OF PHYSICAL MEDICINE,
XXVIII:11:705:712
November, 1947

The occurrence of colds, influenza and other epidemic diseases are infrequent during the summer months when buildings, buses and subway cars are freely ventilated by out-of-doors air. The public health officers and members of the medical profession have recognized that this results in part from the high sanitary quality of out-of-doors air, which is practically free from pathogens.

During the winter months the conservation of heat and the avoidance of drafts restrict greatly the extent of fresh air ventilation. Numerous tests have confirmed that at such times pathogens are frequently present in unsafe concentrations in the air of occupied rooms.

Numerous animal experiments conducted under strictly controlled conditions have established the transmission of infection by the air-borne route. Thus, influenza types A and B have been transmitted to mice and ferrets. Tuberculosis has been transmitted to rabbits. Poliomyelitis has been transmitted to monkeys. A few labo-

(*Continued on page* 52)

In Secondary Anemia

Not Only Iron... but also B Complex Vitamins and Liver



Not infrequently hypochromic anemia is complicated by associated nutritional deficiencies. Anorexia, disturbed gastrointestinal function, listlessness and easy fatigability are often observed concurrent with secondary anemia; in many if not all such instances deficiencies of one or more of the B complex vitamins may be responsible.

LIVITAMIN-WITH-IRON provides rapidly effective iron in readily utilizable, nonionic, minimally irritating form. In addition it supplies significant amounts of synthetic thiamine, riboflavin, nicotinamide, pyridoxine and pantothenic acid, as well as these and other vitamin B complex factors found in rice bran extract and in liver concentrate.

LIVITAMIN-WITH-IRON is indicated in hypochromic (secondary) anemia, particularly when accompanied by evidence of B complex deficiency states. It is highly efficacious whether the anemia is due to acute or chronic blood loss, deficient iron intake, infectious and other toxic states, pregnancy, or lactation.

The palatability of **LIVITAMIN-WITH-IRON** makes it readily acceptable to children as well as adults.

DOSAGE: 3 to 4 teaspoonfuls three times daily.



Each fluidounce of Livitamin With Iron, prepared with an attractive, palatable vehicle, presents:

Iron and Manganese Peptonized (Equivalent to 45 mg. elementary Iron)	30 gr.
Iron Peptonized, N.F. (Equivalent to 140 mg. elementary Iron)	12½ gr.
Thiamine Hydrochloride (B_1)	10 mg.
Riboflavin (B_2, G)	5 mg.
Nicotinamide (Niacinamide)	25 mg.
Pyridoxine Hydrochloride (B_6)	1 mg.
Pantothenic Acid	5 mg.
Liver Concentrate 1:20 (Represents 2 oz. fresh liver)	45 gr.
Rice Bran Extract	15 gr.

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PHYSICAL MEDICINE (Continued)

ratory observed cross-infections between humans have been reported and are very suggestive that air-borne organisms were responsible. Among these mention should be made of a laboratory outbreak of Q fever caused by Rickettsia burnetti and an institutional outbreak of pneumonitis.

The relative importance of dust, droplets or droplet unclei in the spread of disease of bacterial and virus origin is not known. Dust in hospital wards and army barracks has been shown to become greatly contaminated with pathogens associated with streptococcic infections of the respiratory tract. Housekeeping activities such as floor sweeping, bedmaking and dressing have resulted in contamination of the air in the whole environment, which has provided many opportunities for the spread of infectious disease.

Summary

Experiments and experiences have indicated that air disinfection may be satisfactorily accomplished and maintained in all ordinary installations by means of ultraviolet radiations. Its application for the elimination of air-borne infection in operating rooms and for the prevention of cross infection in contagious disease and pediatric wards has been approved by the Public Health Association after a careful study of all evidence. There are many reported indications that ultraviolet air disinfection may be beneficial in other applications, such as barracks, schools, offices and places of public congregation.

Present experience indicates that the pure air requirements per person are of the order of 30,000 cubic feet of pure air per hr. This rate of sanitary ventilation may usually be obtained by ultraviolet air disinfection.

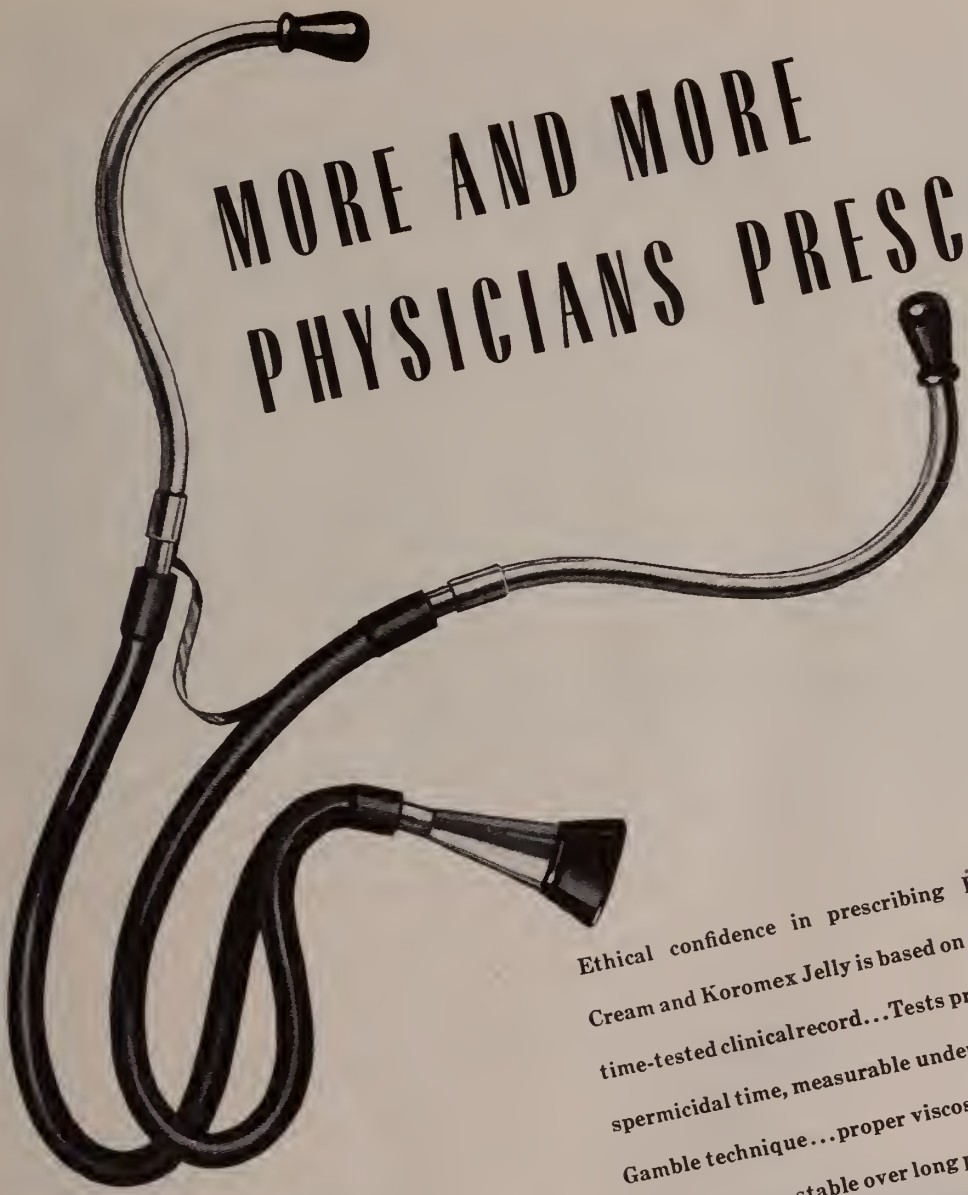
MANIPULATION OF STIFF JOINTS

James Mennell, M.D., London, England

In ARCHIVES OF PHYSICAL MEDICINE,
XXVIII:11:685:89
November, 1947

It has been possible to develop the science and art of joint manipulation only since it has become possible to study the living anatomy of joints. Till that time arrived, joint manipulation was more or less haphazard and was, therefore, unpopular and remained undeveloped so far as medical practitioners as a whole were concerned.

(*Continued on page* 54)



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PHYSICAL MEDICINE (Continued)

Then the trouble arose that when the science seemed to lay the way open the art had still to be developed, and it was during this stage that the whole proceeding fell into disrepute again because of faulty technic. There are certain rules which must be obeyed if any form of medical treatment had to be led to success; the object in view in preparing this article has been to state these laws and to try to explain the reasons for their existence.

Summary

1. The living anatomy of joints is an essential study for persons who wish to undertake joint manipulation.

2. The exact diagnosis of the condition present is essential before one should try to restore mobility at any time by forced movement.

3. The laws of anatomy and physiology must be applied to any and every movement performed, and the movements that are not under voluntary control must be secured before those that are voluntarily controlled.

4. The movement of every joint in the body requires a special technic, and unless this technic is scientifically acquired more harm than good is likely to be done.

WHAT'S NEW IN PERIPHERAL VASCULAR DISEASE

Norman E. Freeman, M.D., San Francisco, Calif.

In CALIFORNIA MEDICAL JOURNAL,
67:5:280-1
November, 1947

The field of vascular surgery has expanded so rapidly during the past several years that selection is necessary in reviewing the recent advances. The intention here is to present only a brief summary of the outstanding contributions.

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Book Reviews

UNIPOLAR LEAD ELECTROCARDIOGRAPHY. By Emanuel Goldberger, B.S., M.D., Adjunct Physician, Montefiore Hospital, New York; Cardiographer and Associate Physician, Lincoln Hospital, New York; Diplomate of the American Board of Internal Medicine; Clinical Lecturer in Medicine, Columbia University Faculty of Medicine. With 88 Illustrations. Lea and Febiger, Philadelphia 1947. Price $4.00. Pages 182.

The author has written a monograph upon the results of his studies of the relationships between standard electrocardiographic leads, precordial leads, and unipolar leads. This book describes patterns primarily in terms of unipolar leads, because the author feels that such leads follow more physiological principles. Following a discussion of the electrical currents that are produced by the normal heart muscle, there follows the methods of obtaining unipolar leads and the basic normal patterns. A chapter is devoted to the relationship between standard and unipolar leads, and the normal electrocardiogram, including the effects of position of the heart.

The author feels that unipolar leads are of special value in axis deviation, the diagnosis of Q wave abnormalities, the differentiation between pulmonary embolism and posterior infarction, the diagnosis of small myocardial defects, the diagnosis of bundle branch block, the diagnosis of right ventricular hypertrophy, the interpretation of the RS-T segment and T wave, and the interpretation when minimal changes are present. A section is devoted to abnormal electrocardiographic patterns.

There are 10 chapters and 182 pages. The book is well written and contains many diagrams and illustrations.

J.W.F.

HODGKIN'S DISEASE AND ALLIED DISORDERS: By Henry Jackson, Jr., A.B., M.D., Assistant Professor of Medicine, Harvard Medical School; Associate Physician, Thorndike Memorial Laboratory, Boston City Hospital; and Frederic Parker Jr., A.B., M.D., Associate Professor of Pathology, Harvard Medical School; Pathologist-in-chief, Boston City Hospital. New York, Oxford University Press, 1947. Price $6.50.

The authors have written a worthwhile monograph based on their experience over a period of years. They differentiate more specifically the groups of conditions usually known as lymphomas or malignant lymphomas by discussing separately Hodgkin's disease, reticulum — cell sarcoma, giant-follicle lymphoma, lymphocytoma, lymphosaracoma, plasmocytoma, and endothelioma.

A brief discussion is given of Hodgkin's disease, its treatment and prognosis. The disease is divided into three types: paragranuloma, granuloma, and sarcoma; and the pathologic picture, clinical aspects, and prognosis of each are covered. Essential historical research and present day research studies are included. There are brief accounts of the involvement of various organs by these three types of the disease. Case histories illustrate many features of these conditions.

A chapter each is given to reticulum-cell sarcoma, lymphocytoma and lymphoblastoma, lymphosarcoma, giant-follicle lymphoma, plasmocytoma, and entothelioma.

There are several clear photographs of microscopic pathology and X-ray films. The book includes 177 pages and 7 chapters.

J.W.F.

Books Received

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

MODERN TREATMENT OF PEPTIC ULCER: Asher Winkelstein, M.D., B.S., Associate physician for gastroenterology and physician in charge of the gastro-intestinal clinic, the Mount Sinai Hospital, New York City; Assistant Professor of Clinical Medicine (Gastro-Enterology), Columbia University, New York

City: Oxford University Press, New York: 205 pages, Price $4.00.

JUNIOR SPEAKS UP: Irving R. Abrams, B.S., M.D., Associate Attending Physician, Cook County Children's Hospital: Clinic Physician, Sarah Morris Children's Hospital, Chicago: Licentiate of the American Board of Pediatrics: The MacMillan Company, New York; 164 pages; Price $2.50.

SKELETAL TUBERCULOSIS: Vicente Sanchis-olmos, M.D., Assistant Director of the Institute Nacional de Reeducation de Invalidos de Carabanchel Bajo (Madrid, Spain). Translated from the Spanish by John G. Kuhns, M.D., Chief of the Orthopedic and Surgical Services, Robert Brigham Hospital; Forward by Frank R. Ober, M.D., Clinical Professor of Orthopedic Surgery, Harvard Medical School; The Williams & Wilkins Company, Baltimore; 261 pages; Price $5.00.

BRIEF PSYCHOTHERAPY: A handbook for physicians on the clinical aspects of neuroses; Bertrand S. Frohman, M.D. With the collaboration of Evelyn P. Frohman; foreword by Walter C. Alvarez, M.D.; Lea & Febiger, Philadelphia; 265 pages; Price $4.00.

SYMPOSIUM ON MEDICOLEGAL PROBLEMS: Under the cosponsorship of the Institute of Medicine of Chicago and the Chicago Bar Association; Edited by Samuel A. Levinson, M.D., Ph.D., University of Illinois College of Medicine for The Committee of the Institute of Medicine and The Chicago Bar Association; J. B. Lippincott Company, Philadelphia, London, Montreal; 255 pages; Price $5.00.

SEX POWER IN MARRIAGE: With case histories; a realistic analysis concerning the sensual and emotional problems of marriage; Edwin W. Hirsch, B.S., M.D., formerly on urological faculty, College of Medicine, University of Illinois; 218 pages; Price $3.00.

MAN-WEATHER-SUN: William F. Petersen, M.D., Chicago, Charles C. Thomas, Publisher, Springfield, Illinois; 223 pages, illustrated. Price $3.00.

TREATMENT IN GENERAL PRACTICE: (Sixth Edition) Harry Beckman, M.D., Professor of Pharmacology, Marquette University School of Medicine, Milwaukee, Wisconsin. W. B. Saunders Company, Philadelphia & London; 1129 pages. Price $11.50.

BERGEY'S MANUAL OF DETERMINATIVE BACTERIOLOGY: Robert S. Breed, New York State Experiment Station (Cornell University), Geneva, New York, E. G.

(*Continued on page* 59)

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BOOKS RECEIVED (Continued)

D. Murray, McGill University, Montreal, Province Quebec, Canada; A. Parker Hitchens, University of Pennsylvania, Philadelphia, Pennsylvania; Sixth Edition; The Williams & Wilkins Company, Baltimore; 1529 pages; Price $15.00.

DISABILITY EVALUATION: Principles of Treatment of Compensable Injuries; Earl D. McBride, B.S., M.D., F.A.C.S., Diplomatic American Board Orthopedic Surgery; Assistant Professor in Orthopedic Surgery, University of Oklahoma, School of Medicine, Attending orthopedic surgeon to St. Anthony's Hospital; Associate orthopedic surgeon to Wesley Hospital; Visiting surgeon to W. J. Bryan School for Crippled Children; Chief of Staff to Bone and Joint Hospital, Oklahoma City, Oklahoma; over 400 illustrations; Fourth Edition revised; J. B. Lippincott Company, Philadelphia, London, Montreal; 667 pages; Price $12.00.

TREATMENT BY DIET: Clifford J. Barborka, B.S., M.S., M.D., D.Sc., F.A.C.P., Assistant Professor of Medicine, Northwestern University Medical School, Chicago, Attending Physician, Passavant Memorial Hospital, Consultant in Gastro-enterology and Gastroscopy, Liagnostic Center, Hines Veterans Hospital; Formerly consulting Physician, The Mayo Clinic; Fifth Edition; 14 plates, including 13 in color; J. B. Lippincott Company, Philadelphia, London, Montreal; 784 pages; Price $10.00.

HERNIA: Anatomy, Etiology, Symptoms, Diagnosis, Differential Diagnosis, Prognosis, and Treatment; By Leigh F. Watson, M.D., F.I.C.S., Los Angeles, Certified by the International Board of Surgery; Formerly Assistant Professor of Surgery, University of Oklahoma Medical School, Oklahoma City; Third Edition, enlarged and thoroughly revised; with 323 illustrations by Helen Lorraine, Willard C. Shepard and Ralph Sweet; The C. V. Mosby Company, St. Louis; 732 pages; $13.50.

THE RH FACTOR in the Clinic and the Laboratory; Joseph M. Hill, M.D., and William Dameshek, M.D., Editors; Grune and Stratton, New York; 192 pages, Price $4.25.

PSYCHOLOGICAL ATLAS: David Katz, University of Stockholm; 400 illustrations; Philosophical Library, New York; 142 pages; Price $5.00.

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PEDIATRICS	**1 WEEK**	**General Pediatric Continuation Course, May 24 through 29, 1948**

CONTINUATION COURSE IN OBSTETRICS AND GYNECOLOGY — May 31 through June 26, 1948

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THE VALUE OF CHEST X-RAY SURVEY IN THE DIAGNOSIS OF CARDIOVASCULAR DISEASE

A chest X-ray survey may be of considerable value in the discovery of heart disease in addition to abnormal pulmonary conditions. There are various cardiac lesions which may cause changes in the contour of the cardiac silhouette or in the prominence of the great vessels. It is true that individuals with a serious heart disease such as arteriosclerosis of the coronary arteries may have entirely normal cardiac shadows in the x-ray film. Certain cardiac abnormalities which are detected by other forms of radiologic examination may not be apparent on the posterior-anterior view obtained in the routine chest film. Although it must be admitted that the x-ray survey cannot be 100 per cent effective in detecting individuals with cardivascular disease, it may be a very useful device.

Enlargement of the left ventricle may be detected by the chest x-ray and may be due to any one of the following causes: hypertensive heart disease, arteriosclerotic heart disease, chronic rheumatic valvular heart disease with aortic stenosis and/or insufficiency, luetic insufficiency and other less common cardiac lesions. Localized enlargement of the lower left cardiac border may be found in aneurysm of the left ventricle following coronary thrombosis with myocardial infarction. Right ventricular enlargement may be manifested by an increase of the heart shadow to the right of the midline. Commonly, however, moderate or even marked enlargement of the right ventricle may cause an increase in the heart shadow to the left. The posterior-anterior projection does not always, therefore, in itself give adequate information as to which chamber of the heart is enlarged.

An increased prominence of the pulmonary trunk and pulmonary artery shadow on the superior portion of the left heart border may be found in mitral stenosis interauricular septal defect, patent ductus arteriosus, pulmonary arteriosclerosis, chronic cor pulmonale and thyrotoxicosis. It may also be present when the left side of the heart has decompensated as in hypertensive heart disease.

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Abnormalities in the thoracic aorta may be found in a survey. Arteriosclerotic or syphilitic aneurysm of the aorta may present a striking x-ray appearance. Lesser degrees of tortuosity and ectasia may commonly be seen in adults of the older age groups. Deposits of calcium may be seen in the aortic knob. Decreased prominence or absence of the aortic knob may suggest coarctation of the aorta. This is especially true if scalloping of the rib margins and left ventricular enlargement are present. Abnormalities in the origin or course of the aortic arch may also be found.

Congenital cardiac lesions may be detected also in a survey. The tetralogy of Fallot may be suggested by the combination of the peculiar boot-shaped heart plus the anemic appearing lungs. Interventricular septal defects may cause enlargement of both the left and the right ventricle. Dextrocardia will be evident by the striking x-ray appearance of the chest. Other congential cardiac lesions have been mentioned above.

It is essential that those individuals whose routine x-ray films show cardiovascular abnormalities be referred to their physicians for further studies. Only by obtaining a careful history and physical examination and by making judicious use of the electrocardiogram, other forms of radiologic examinations, and other laboratory procedures can an exact diagnosis be arrived at and proper management instituted. It is possible that some completely curable cardiac lesions may be discovered by the survey. The health of other individuals with cardiac disease may be preserved by regulating activity to an optimum level and by applying appropriate therapeutic measures.

The value of a survey to the health of a community is impossible to estimate. It will depend in large measure on how well the physicians of the community perform the task of arriving at

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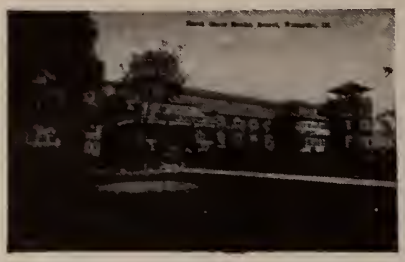
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CHEST X-RAY (Continued)

an exact diagnosis and advising appropriate therapy.

The Value of Chest X-ray Survey in the Diagnosis of Cardiovascular Disease, George N. Aagaard, M.D., The Journal-Lancet, June 1947.

AMERICAN HOME PRODUCTS RENAMES SUBSIDIARY

In line with its expanding activity in the field of general pharmaceuticals, American Home Products Corporation has announced a significant name change in one of its subsidiaries. Products in the IVC group, formerly marketed under the name of International Vitamin Corporation, will henceforth be sold under the designation, "International Vitamin Division, Ives-Cameron Company, Inc." This implies no change in ownership, and Ives-Cameron Company, Inc., remains a wholly owned subsidiary of American Home Products Corporation. Executive personnel of the company will also remain the same.

RECOMMENDED LARGER PENICILLIN DOSAGE TO PREVENT INFECTION

Study of Children with Rheumatic Fever who received Penicillin shows germs acquire Unexpected Resistance

To prevent infections of the throat, nose and tonsils and consequent recurrences of rheumatic fever, larger oral doses of penicillin should be given than have usually been recommended for rheumatic fever patients, say three writers in the February 21 issue of *The Journal of the American Medical Association.*

The writers are Albert Milzer, Ph.D., Kate H. Kohn, M.D., and Helen MacLean, A.B., Chicago, from the Department of Bacteriology and Cardiovascular Research, Medical Research Institute of Michael Reese Hospital.

The penicillin is given for prevention or treatment of hemolytic streptococcus infections, which start in the upper respiratory tract and destroy red blood cells so that the patient rapidly becomes anemic. Such infections play a part in

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the development or recurrence of rheumatic fever.

The study reported by the writers involved 114 children with rheumatic fever, all attending the same special school for children with rheumatic heart disease. Over a period of at least five months, 64 of these children received an oral dose of 50,000 units of penicillin twice daily. The remaining 50 children received no penicillin but were in constant daily contact with the others. After the test group had received penicillin daily for at least four months, throat cultures were made from all 114 children.

Strains of beta hemolytic streptococci isolated in the throat cultures of 87 per cent of the group receiving penicillin were found to have become at least 16 times more resistant to penicillin than is true in routine tests of sensitivity to the drug prior to treatment.

Forty per cent of beta hemolytic streptococci from the group which did not receive penicillin were also significantly resistant to the drug. The writers explain this by the frequent opportunity for cross infection between the two groups, since they were in constant contact for at least four months before the throat cultures were made.

"Because our results show the development of significant resistance of beta hemolytic streptococci to penicillin, additional experiments are being planned in which larger oral doses of penicillin will be given daily for prophylaxis against recurrence of rheumatic fever," the writers state.

CIBA MAKES $1,500 GRANT TO U. OF I.

A research grant of $1,500 has been received by the University of Illinois college of medicine from Ciba Pharmaceutical Products of Summit, N. J.

Dr. A. C. Ivy, vice-president of the University of Illinois in charge of the Chicago Professional Colleges, announced that the grant is designed for the study of skin-sensitizing properties of a nicotinic acid derivative.

The research will be conducted by the department of dermatology, under the direction of Dr. Adolph Rostenberg, Jr.



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A case of fatal poisoning through accidental swallowing of a commercial DDT preparation is reported in the February 14 issue of *The Journal of the American Medical Association* by Nathan J. Smith, M.D., Department of Pathology, Veterans Administration Center, Wadsworth, Kansas.

The victim was a man of 58 who drank, accidentally, an insecticide which contained five per cent DDT. Within an hour he was suffering from severe gastrointestinal symptoms. They continued with increasing severity, and five days later he was admitted to the Veterans Administration Center in Wadsworth. Treatment proved futile and he died the next day.

At autopsy degenerative changes were found in the liver and kidney. When rabbits were experimentally poisoned with the same insecticide or given five per cent DDT in kerosene (another ingredient of the insecticide), the same effects were noted at autopsy.

"With the increasing use of DDT insecticides by the general public, it is not unlikely that occasional cases of poisoning from its accidental ingestion will be encountered," Dr. Smith warns.

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VOL. 93 NO. 5

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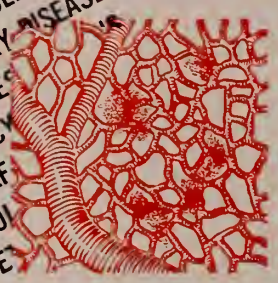
(See page 31 for complete Table of Contents)

OFFICIAL JOURNAL OF THE ILLINOIS STATE MEDICAL SOCIETY

to reduce risk

of vascular accident

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The isotonic solutions of Neo-Synephrine hydrochloride permit ciliary function to continue in an efficient manner, while congestion is reduced by vasoconstriction.

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INTRODUCING
A New Pediatric Formula . . .

To meet the needs of pediatric patients in whom a complete vitamin supplement is indicated, White Laboratories announces a new, palatable, aqueous drop-dosage formula—

White's MULTI-VI LIQUID

Easily administered, water miscible and readily absorbed, non-alcoholic, this palatable new vitamin supplement is particularly adapted to prevention or correction of multiple vitamin deficiencies in infants and children.

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Each 0.6 cc. contains:

Vitamin A	5000 U.S.P. units
Vitamin D_3	1000 U.S.P. units
Thiamine Hydrochloride	1.0 milligrams
Riboflavin	0.4 milligrams
Pyridoxine Hydrochloride	1.0 milligrams
Sodium Pantothenate	2.0 milligrams
Nicotinamide	10.0 milligrams
Ascorbic Acid	50.0 milligrams

NOTE: Vitamin D is present as Vitamin D_3, which, unlike viosterol, is chemically identical with the "D" of cod liver oil. Vitamin C is present in optimal amount—meets the needs of those who cannot tolerate natural food sources of this vitamin.

RECOMMENDED DOSAGE:
For young infants: 0.3 cc. daily.
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May be given in the formula or directly. Accurate dosage assured by accompanying calibrated dropper.

ECONOMICAL: Cost of protective daily dosage for average infants—only 2 cents!

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ALL essential vitamins for infants in a stable WATER-MISCIBLE liquid form

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WHITE'S "INTEGRATED" VITAMIN FORMULAS

To satisfy the varying vitamin requirements of infancy and childhood, White Laboratories now offer the physician a well-rounded group of related formulas thereby providing the clinical advantage of greater flexibility.

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—the nutritionally important *vitamin B factors* in a water-miscible vehicle—presented in proportion to their inadequacy in average diets of early infancy.

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NOW COUNCIL ACCEPTED

a premium product for intravenous infusion



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- a modified acid hydrolysate of casein, containing high total and alpha-amino nitrogen
- 60 grams of free amino acids, essentially free of polypeptides
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Available in 25 mg tablets
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T. M.—THEPHORIN — REG. U. S. PAT. OFF.

in weight reduction— new evidence of the efficacy of Dexedrine

Excerpts from a recent study entitled, THE MECHANISM OF AMPHETAMINE-INDUCED LOSS OF WEIGHT: A Consideration of the Theory of Hunger and Appetite —by Harris, S. C.; Ivy, A. C., and Searle, L. M.: J. A. M. A. 134:1468 (Aug. 23) 1947.

experiment 1. Does 'Dexedrine' Sulfate, by controlling appetite, decrease food intake and body weight in human subjects?

results ". . . our obese subjects lost weight when placed on a diet which allowed them to eat all they wanted three times a day . . ."

experiment 4. Does the rather prolonged administration of Dexedrine cause any evidence of disturbance of tissue functions?

results "No evidence of toxicity of the drug as employed in these studies was found . . . no evidence of deleterious effects of the drug was observed."

Dexedrine* Sulfate

(*dextro-amphetamine sulfate, S.K.F.*) Tablets Elixir

for control of appetite in weight reduction

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Smith, Kline & French Laboratories, Philadelphia

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analgesic calamine ointment

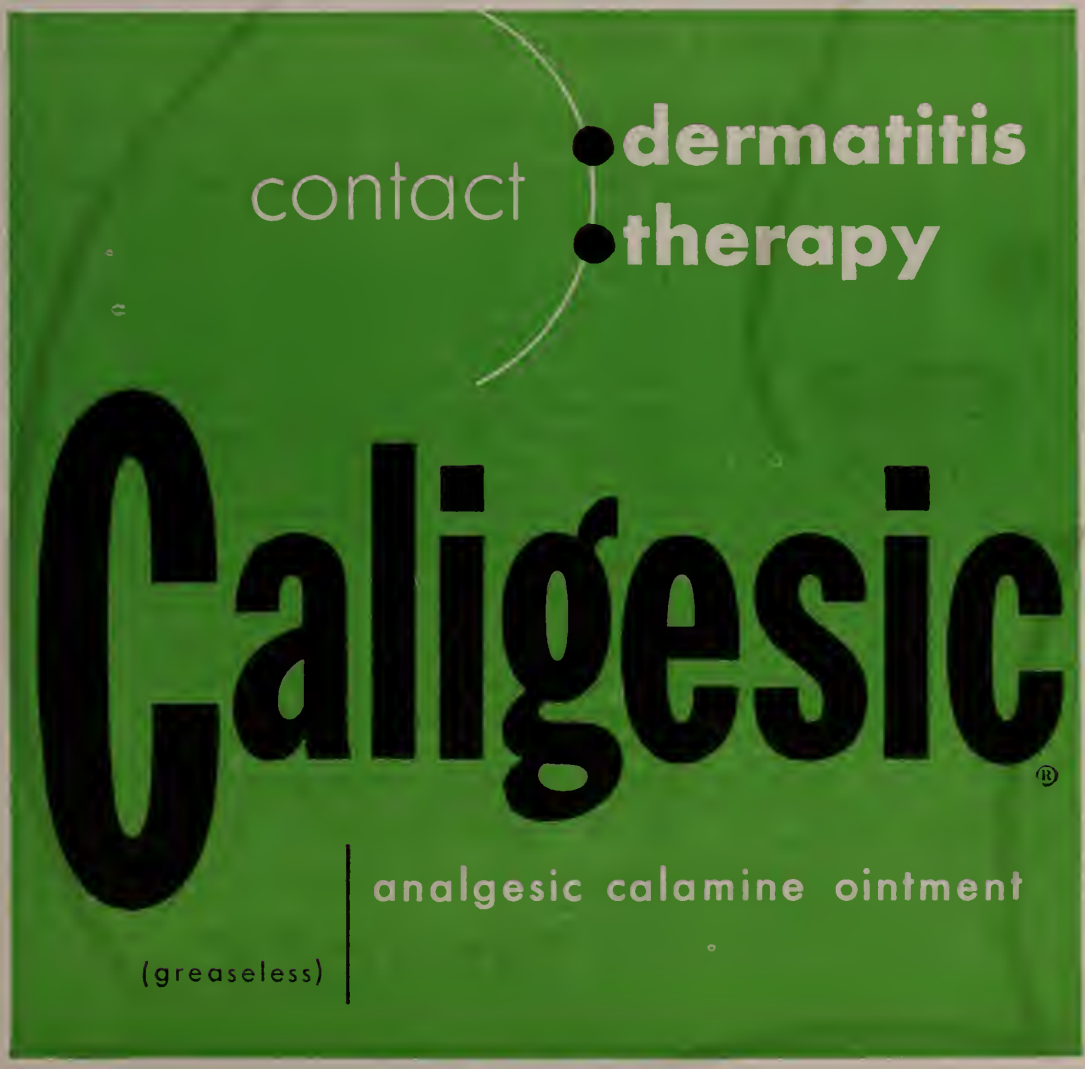
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*BOGERT, L. J.: *Nutrition and Physical Fitness, 4th edition, 1943, Chapter IX, p. 22.*

**A.M.A.: *Handbook of Nutrition, 1943, p. 360.*

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BIBLIOGRAPHY: (1) Fluhmann, C. F.: J.A.M.A. **135**:557, 1947. (2) Frank, R. T.: M. Clin. North America **25**:607, 1941. (3) Krohn, L., and Harris, J. M.: Am. J. Obst. & Gynec. **41**:95, 1941. (4) Harding, F. E.: Am. J. Obst. & Gynec. **53**:279, 1947.

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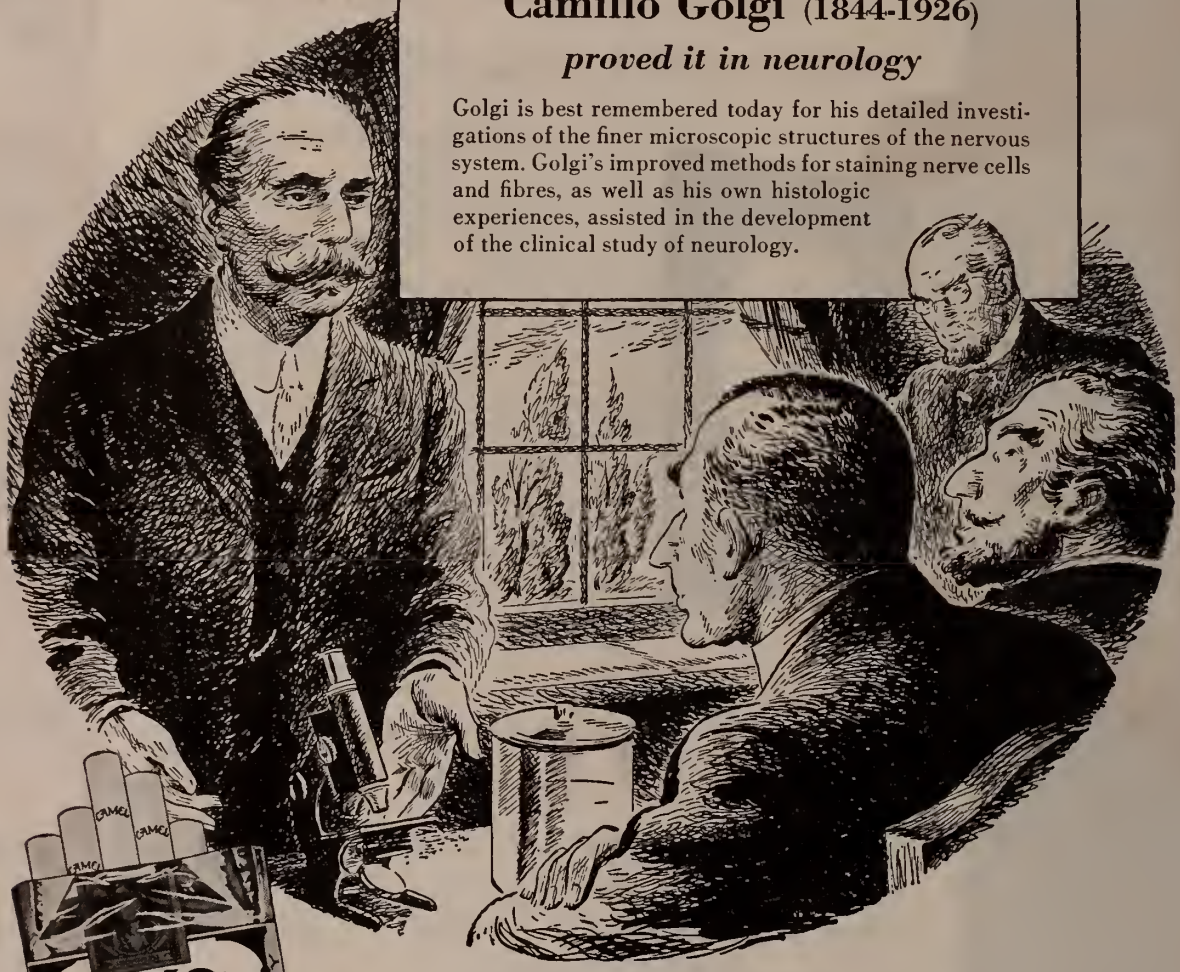
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Golgi is best remembered today for his detailed investigations of the finer microscopic structures of the nervous system. Golgi's improved methods for staining nerve cells and fibres, as well as his own histologic experiences, assisted in the development of the clinical study of neurology.







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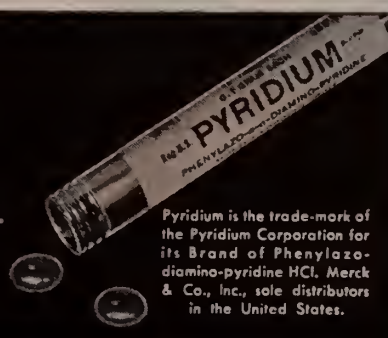
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GUSTATORY satisfaction, the subjective aim of eating, is not necessarily achieved by a nutritionally adequate meal. Even with good proportions and amounts of essential nutrients, other requisites must be met. Thus, even a well balanced meal may be drab and fail to produce the desired palatal satisfaction. In such instances, candy usually provides the needed finishing touch, and does much to dispel gustatory monotony. Not only children but also adults appreciate the feeling of satiety that candy brings at such times.

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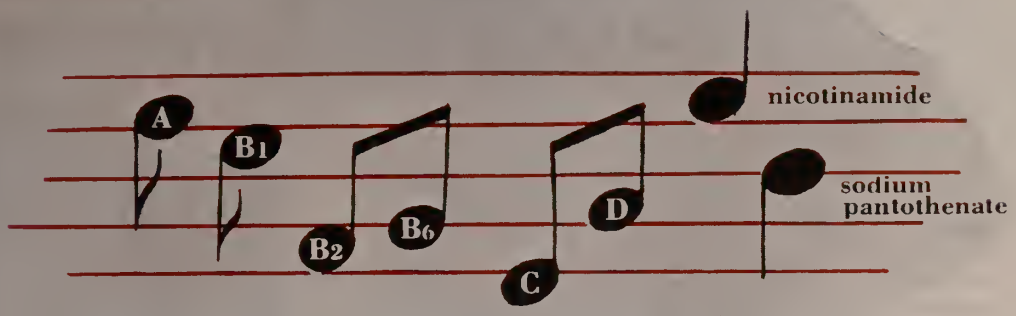
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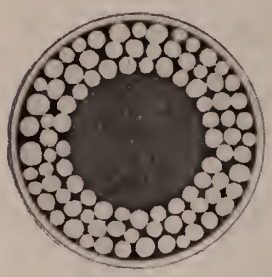
Each 0.6 cc. (10 minims) of ABDEC DROPS contains vitamin A, 5000 units; vitamin D, 1000 units; vitamin B_1, 1 mg.; vitamin B_2, 0.4 mg.; vitamin B_6, 1 mg.; pantothenic acid (as sodium salt), 2 mg.; nicotinamide, 5 mg.; vitamin C, 50 mg.

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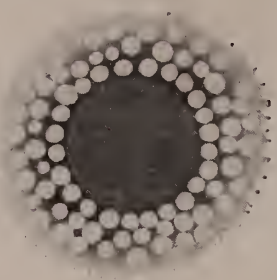


Fig. 2 — Tablet in duodenum. Liver bile plus increased alkalinity hastens emulsification of lipids of coating.



Fig. 3 — Complete disintegration.

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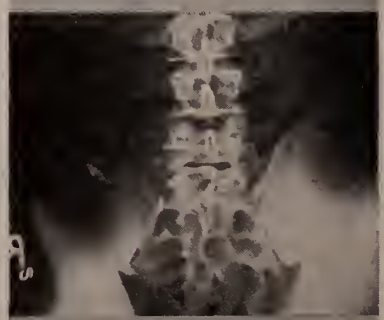
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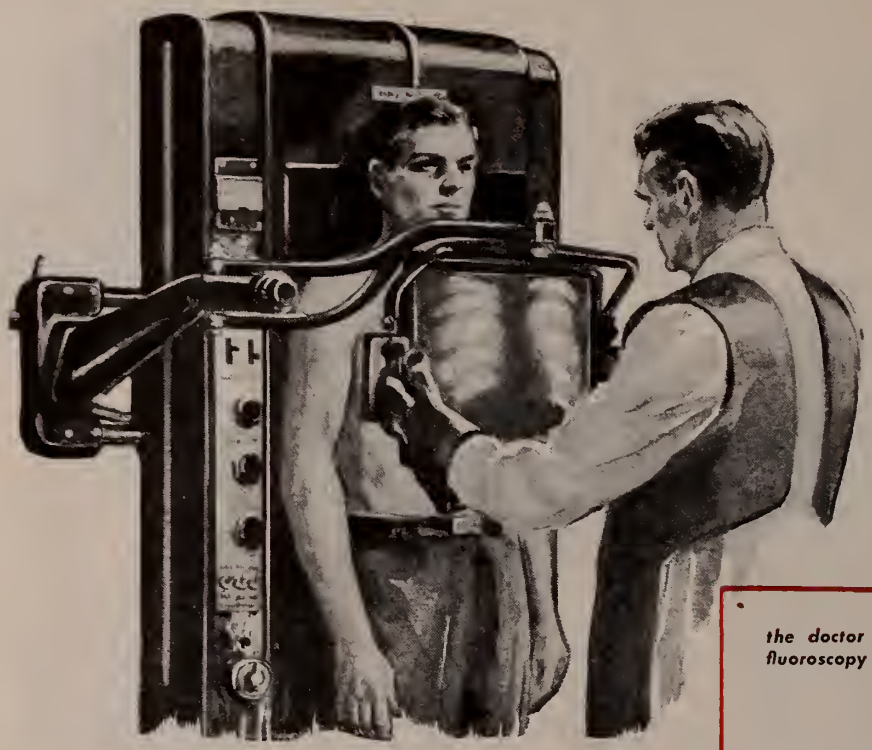
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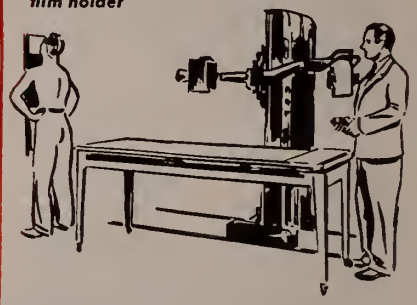
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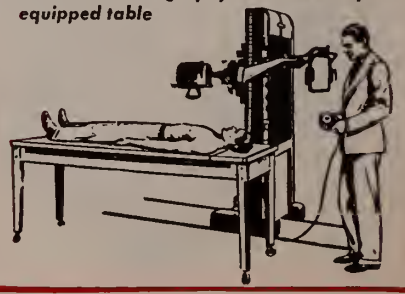
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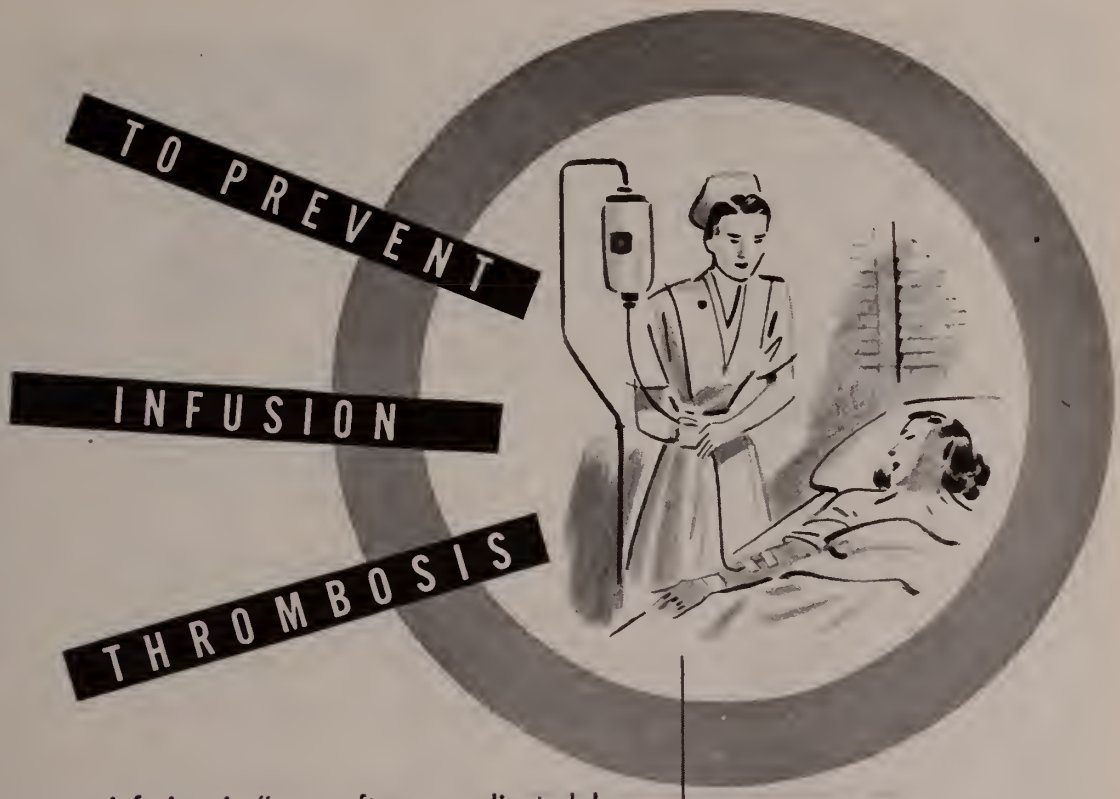
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*J. E. Jorpes, Heparin in the Treatment of Thrombosis, Oxford University Press, London, 1946. **P .G. C. Martin, *Brit. M. J* 2:308, 1944.

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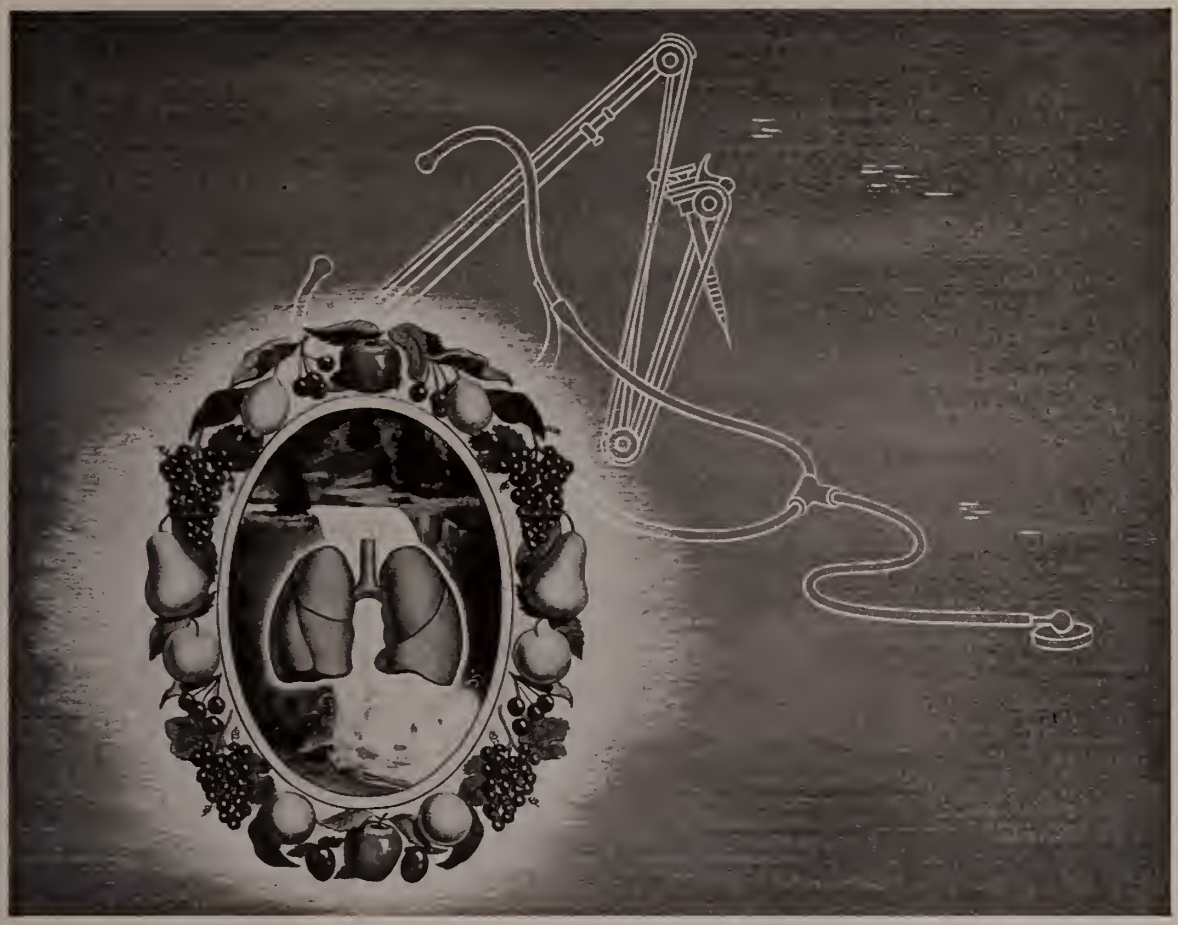
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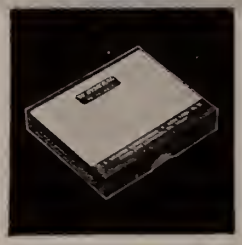
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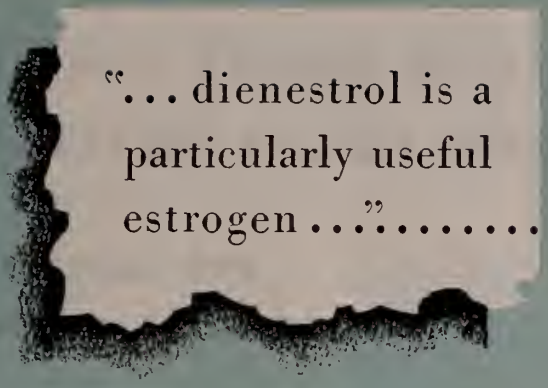
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THE JOURNAL OF CLINICAL ENDOCRINOLOGY 7:688 (OCTOBER) 1947

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1. Pierce, R. R.: Am. J. Obst. & Gynec. vol. 55 (Feb.) 1948.

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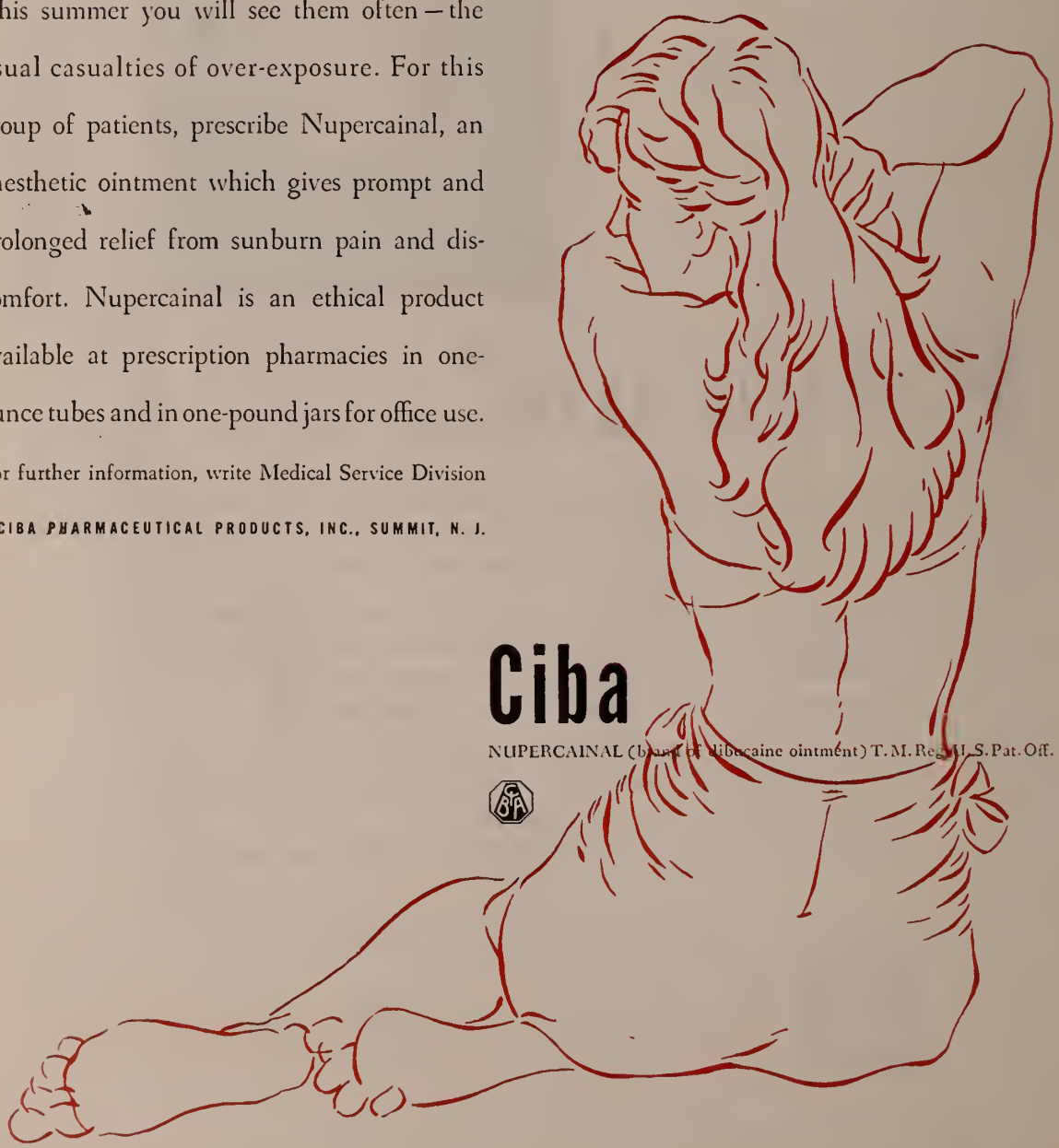
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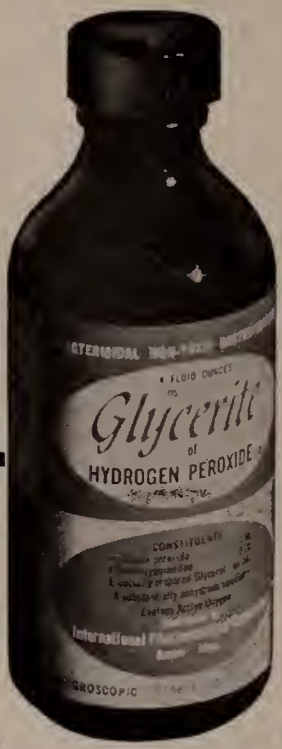
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Bibliography:

New Eng. J. Med.	234:468, 1946.
J. Invest. Derm.	8:11, 1947.
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The Illinois Medical Journal

May, 1948
VOL. 93, NO. 5

Official Journal of the Illinois State Medical Society

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Editorials

THE POST GRADUATE CONFERENCES

The Council of the Illinois State Medical Society approved the recommendation of the Chairman of the Committee on Post Graduate Service that 12 conferences be scheduled and held during the last fiscal year. Eleven conferences were actually held, and the 12th was postponed until after the annual meeting.

The last of the conferences in this series was held at Kewanee on Thursday, April 15, when approximately 100 physicians from many counties were present and heard a well balanced program. The total attendance at these conferences was approximately 1750, and nearly every county in Illinois was represented during the series. Many commendatory expressions were received from hundreds of members who attended these conferences and who expressed the hope that the Society would be equally generous during the next fiscal year, and have as many, if not more, of the conferences scheduled as have been presented in the last series.

The banner attendance in the series was at Decatur on March 25, when more than 200 were present for the dinner, and at least 300 heard the evening program which followed. The attendance at Champaign on April 8 was approximately 190, who were present throughout the afternoon and most of whom remained for the dinner and the evening meeting.

The post graduate conferences have now been conducted over a period of some 10 years, and they have been most popular with the membership as frequently as many as 24 counties are represented at some of the conferences, and rarely less than 15 counties represented at the smaller ones.

The Illinois State Medical Society is deeply indebted to the fine men and women who have appeared on these programs, frequently requiring them to spend two nights on the train and be absent from their work one full day. At most of these conferences physicians have been present who traveled 150 miles or more to be present and some of them have been present at six or more conferences during the series.

The report of the Chairman of the Committee on Post Graduate Medical Service, Dr. Robert S. Berghoff, Chicago, was included in the handbook distributed to members of the House of Delegates, and the recommendations of the references committee to which the report is submitted will govern in a general way the action to be taken by the Council later on in designating the number of conferences to be conducted during the next fiscal year.

THE MEDICAL BENEVOLENCE FUND

Among the many reports which will be submitted to the House of Delegates at the 1948 annual meeting of the Illinois State Medical Society will be the annual report of the Committee on Medical Benevolence, of which Dr. Oscar Hawkinson, Oak Park, is chairman. Doc-

tor Hawkinson once more urges the members of the State Medical Society to send in their contributions to the fund in the effort to build up a substantial fund which will take care of all beneficiaries for some time to come.

Letters were sent to all members of the Society last year and less than 10% made a contribution to the fund. The Aux Plaines Branch of the Chicago Medical Society, of which Doctor Hawkinson is a member, endeavored to get a contribution from each member of the large branch, and at this time the sum of $2,000.00 has been received from their members. The information was also submitted that more will be received in the near future from the Branch, as they are to send additional letters to those members who failed to respond to their first appeal.

The Secretary's Office has recently received copies of resolutions from several component societies in Illinois, which have been approved and will be introduced before the House of Delegates at the annual meeting in Chicago May 10-12. In the several resolutions it is being recommended that the annual dues of the society be increased from one to five dollars annually, the additional amount to go into the Medical Benevolence Fund.

Although secrecy must be maintained in order that there shall be no embarrassment upon the part of beneficiaries, the members of the committee who know the beneficiaries and have seen the many letters of appreciation which have been received from them, realize the value of this service to disabled former members, or the widows of former members who need some financial assistance.

It is quite obvious that there will be much interest displayed in the House of Delegates and no doubt some action will be taken which will materially bring dollars into the benevolence

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Wade C. Harker....3rd District, Chicago.....1950
Leo P. A. Sweeney..3rd District, Chicago.....1948
H. Prather Saunders.3rd District, Chicago.....1949
Charles P. Blair....4th District, Monmouth....1949
Ralph P. Peairs....5th District, Normal.....1949
Walter Stevenson....6th District, Quincy.....1948
Charles H. Hulick..7th District, Shelbyville ...1949
Harlan English.....8th District, Danville.....1949
Charles O. Lane 9th District, W. Frankfort.1948
G. C. Otrich.....10th District, Belleville.....1948
Edwin S. Hamilton.11th District, Kankakee.....1950

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fund. Immediately after the annual meeting, the action taken will be again referred to in the editorial pages of the Illinois Medical Journal.

COMMITTEE ON MEDICAL HISTORY

As has been previously stated, the Illinois State Medical Society has selected a committee on medical history which has been given the responsibility of procuring additional historical data from which it is hoped in the near future, a second volume of the History of Medicine in Illinois may be published.

The Committee has held frequent meetings, and has received a considerable amount of encouragement from all parts of the state. Each county society has received a letter asking that a member, who is interested in medical history, be selected to aid in every way possible in the procurement of the desired information and submit it to the Secretary's office in Monmouth.

Many reports have been received from component societies giving the name and address of these individuals who have been selected to aid in this undertaking. Some counties, however, have not as yet submitted this information, and it is hoped that the response will be 100% in the near future. Certain responsibilities have already been assigned to physicians willing to cooperate in this important venture, and it is hoped that within a short time, many Illinois physicians will be working to make the publication of an outstanding volume on medical history of Illinois from 1850 possible.

As will be recalled by many, the first volume of the History of Medicine in Illinois, published in 1927, ended with the year 1850, so information from that date is especially desirable at this time. There are many sources from which such desirable information may be procured. The files of the daily papers throughout the state will be a valuable source, and likewise the files of weekly or semi-weekly papers will give information which is desired. Many counties have had county histories published perhaps several times beginning about 1870, and these will be of much value in this search for reliable data.

Personal interviews with many of the older physicians throughout the state is also a fertile source for such information, and one which must not be overlooked. The Woman's Auxiliary in their desire to aid in this important work should be of much assistance in procuring information from these sources. We have been asked frequently what type of information is desired, and we will enumerate a number of suggestions which have been approved by the Committee on Medical History.

- History of Disease in Illinois
 - Cholera
 - Small pox
 - Typhoid fever
 - Diphtheria
 - Scarlet Fever
 - Tuberculosis
 - Venereal Diseases
 - Diarrheal diseases of infants and children
- Hospitals
 - Early hospitals in Illinois; circumstances relative to their creation; their problems, etc.
 - Financial straits during depressions
 - Extension of services and the changing concepts concerning hospital problems and management
- Medical Education
 - Early medical schools in Illinois
 - Why did they close?
 - Early courses of instruction
 - Problems of these early schools
- Medical Societies
 - Early medical societies in Illinois, especially the district societies
 - History of these societies: when organized; are they still in existence?
 - Why were many of these discontinued, and when?
 - Multi-county medical societies, then and now
- Legislation
 - Medical practice acts; beginning in 1817
 - Efforts to create a state health department over a period of years
 - Non-graduate and unlicensed practitioner; Society's interest in state mental hospitals; efforts to get them originally, maintain and improve them
- Other Institutions under State Department of Welfare
 - Workmen's compensation; 1st law sought in 1874 — succeeding laws
- State Department of Public Health
 - Its organization; scope of activities

Biennial budgets — then and now
Personnel
Present scope of activities of State Health Department
Local Health Departments; when, and how organized; scope of activities
Recent Public health activities
County and multi-county health units
Medical Men and Organizations
Relation to Economic and social life of the state
Travel in Illinois — then and now; railroads; public roads; automobiles-airplanes used by professional men in Illinois
Medical men in political positions in Illinois

This is the type of information that is desired, and physicians who have factual data on these, or other pertinent subjects relative to the practice of medicine in Illinois from 1850 should submit this to the State Society headquarters for the use of the Committee on Medical History. Efforts are being made to locate as much information as possible relative to Illinois physicians caring for soldiers during the Civil War and the Spanish American War, and no doubt assistance can be given by many of the county society historians who have been recently selected to work at the county level with the State Society Committee.

Within a relatively short time, each county society historian will receive a letter from the State Society Committee giving him more information as to his duties so that progress may be continuous as well as productive.

Dr. James H. Hutton, 30 North Michigan Avenue, Chicago 2, is Chairman of the Society's committee, and Dr. D. J. Davis, Permanent Historian, is a member of the Committee. The Committee on Archives likewise is working on this interesting and highly important project, and it is hoped that within a relatively short time, an editor for the volume will be selected who will start the difficult task of selecting the proper material to make an outstanding book on The Medical History of Illinois.

NEW PROFESSIONAL TRAINING OPPORTUNITIES OFFERED ARMY DOCTORS

A revised and greatly expanded professional training program for regular Army and Reserve Medical Officers was announced today by Major General Raymond W. Bliss, Surgeon General of the Army. In line with the policy of providing in the U. S. Army the highest standard of medical care in the world, the program calls for 1900 new doctors in the Regular Army and an increasing number of volunteer Reserve officers on active duty. The program is designed to give many more Army doctors the training needed to meet the requirements for certification by the American Specialty Boards, and to further integrate civilian and military medicine. The new program will facilitate the classification and career management system already in practice in the Medical Corps whereby every effort is made to assign professional officers to posts where they can practice in their special fields of interest.

Five major aspects of the new training program were described by the Surgeon General:

(1) Physicians already resident in civilian hospitals are now eligible for commissions in the Regular Army. Those commissioned may continue their residencies with full pay and allowances from the Army and will be assigned by the Army to the civilian hospital in which they are already resident. Even in the event of a major emergency, residents will complete their training, if it is at all possible. Chances of continuing training for these men will be at least as good as those of civilian doctors in resident training. The Surgeon General's Office will commission 300 residents under this aspect of the program in 1948, 300 in 1949 — 50 as senior residents, 100 as residents and 150 as junior residents.

(2) Civilian interns are now eligible for Army Medical Corps Reserve commissions, and may continue their internship with full Army pay and allowances. Those so commissioned will undertake to accept a commission in the Regular Army on completion of their internship, and will then be permitted to compete for Army residencies in either Army or civilian hospitals. In 1948 and again in 1949, 300 interns will be included in this phase of the training program.

(3) During 1948, 500 younger doctors will be commissioned and assigned to duty at army hospitals in order to compete for 260 residencies in both army and civilian hospitals. Competitive examinations will begin either in September or

October 1948. These residencies are apportioned among the various specialties according to the needs of the Army Medical Corp. Resignation of officers commissioned under this phase of the program will not be accepted within one year after the date of commission.

(4) One hundred and fifty commissions in the grades of major, lieutenant colonel and colonel will be offered in 1948 and another 150 in 1949, to doctors who have completed their training. This aspect of the program is not limited to those men already certified as specialists. since outsanding officers for command and staff positions are needed as well as professional men. Applicants for these commissions in higher grades will not be considered for residencies or specialty training.

(5) Active Reserve Service for specific positions and limited periods will be offered doctors who are not interested in a regular Army career. General announcements for such vacancies, will be made from time to time. Those who come into the service in this manner will not be eligible for residencies. but time spent in practice under this aspect of the program may receive recognition by the specialty board.

The program is designed to attract to a regular Army career medical talent of the highest caliber. One year of active duty as distinguished from training duty is expected for each year of training, whether the training is received in army or civilian institutions. Resignations will not be considered until this obligation has been fulfilled.

Training continuous until completion of the requirements for Specialty Board certification is a definite aim of the program, the Surgeon General emphasized.

The program has been presented to the Council on Medical Education and Hospitals of the American Medical Association and to the Association of American Medical Colleges. Both bodies have officially recognized the value of the program in its entirety.

Information concerning any part of the program may be obtained from the Surgeon General's Office. Address requests to the attention of the Chief of Personnel, SGO, Department of the Army, Washington. D. C.

NATIONAL GUARD REORGANIZATION

In recognition of the great service rendered the nation during the past two wars, our government has seen fit to reorganize the National Guard on a new and larger scale. During the past war especially, the Guard proved its value as a component of the Army of the United States and that it is necessary for the defense and security of our country as planned in the National Defense Act of 1918.

As M Day forces, Guard units fought gallantly in the Philippines, upholding the best American traditions. The various Guard units in this country became the frame work upon which was built the finest fighting force this nation or any nation has ever seen. Its rapid expansion was made possible by the very existence of the Guard. Cadre after cadre was taken out of the old Guard units to organize and train new units. Finally, the old units themselves ended up with brilliant battle records on the far flung fronts of the world.

The American defense plan worked because civilians with vision pledged themselves in time of peace to protect our country as they joined the ranks of the O. R. C. and the National Guard. Again there is peace and again the challenge that it brings, security. In this world of turmoil, a strong national defense is necessary for the security of peace. Our plan of defense calls for strong civilian components of the army. a larger O. R. C. and a larger. well trained National Guard.

The War Department contemplates a total National Guard strength of 682,796 contained in 6,973 units. The major components will be 27 Infantry Divisions and 514 Air units. Other combat and service units make up the bulk of the force. Illinois has been alloted the following units: 33rd Inf. Division, 44th Inf. Division, 66th Fighter Wing, 178th Combat Team, 623rd Q. M. Group, 109th AAA Brigade, 106th Cav. RCU Squadron. this will give Illinois a total strength of 38.487 officers and men.

The Medical Department will be no small part of the new Illinois National Guard. 32 units are contemplated with a total strength of about 100 Medical Corps Officers, 30 Dental Corps, 52 Medical Service Corps, 4 Warrant Officers, 2 Chaplains and 1,689 Enlisted Personnel. On

the 31st of January 1948 there were 17 units organized. The strength of these activated units was 27 Medical Corps Officers, 11 Dental Corps, 24 Medical Service Corps, 1 Warrant Officer, 1 Chaplain and 232 Enlisted men. 15 Units are yet to be organized and activated, requiring 73 medical officers.

The leading Illinois National Guard medical organization is the 108th Medical Battalion of the 33rd Infantry Division, Chicago, Illinois. This unit has enjoyed a brilliant record in the past, dating back to 1910, when the 1st field hospital was organized in Illinois. These units served in Federal duty on the Mexican border in 1916, and later continued as Illinois National Guard units. During World War I, they were incorporated into a new organization known as the 108th Sanitary Train, which served splendidly in several actions in France. The units returned to the United States and were again formed in 1924 to constitute the 108th Medical Regiment.

In 1941, the regiment was inducted into Federal service as part of the 33rd Infantry Division and was sent to Camp Forrest, Tennessee, under command of the illustrious Colonel McKinly of the Veterans' Administration. Hines Hospital, Chicago, Illinois. In 1942, the 108th Medical Regiment was again reorganized to form the 108th Medical Battalion under the able leadership of Lt. Colonel Phillip M. Bedessem, Veterans' Administration. Hines Hospital, Chicago, Illinois. With this reorganization, Colonel Bedessem became Division Surgeon and Lt. Colonel Timothy F. Mullen, Seneca, Illinois, took command. The Battalion moved to Fort Lewis, Washington, where the command was turned over to the capable hands of Lt Colonel Durand Smith, Chicago, Illinois, and Lt Colonel Mullen became the Division Surgeon.

Colonel Smith took the battalion through var-

Medical Department — Illinois National Guard

Organization	Commanding Officer	Location	Date Activated
33rd Infantry Division, Surgeon	Lt Col Arthur E. Diggs	Chicago, Illinois	July 1947
108th Med Battalion	Lt Col John R. Tambone	Chicago, Illinois	27 June 1947
Med Detachment, 131st Inf Regt	Major Standiform Helm	Chicago, Illinois	27 June 1947
Med Detachment, 132nd Inf Regt	Major Walter K. Robinson	Chicago, Illinois	3 March 1947
Med Detachment, 228th Inf Regt	Unit Not Organized		
Med Detachment, 33rd Div Arty	Captain John R. Brazelton	Chicago, Illinois	7 April 1947
Med Detachment, 122nd FA Bn	Unit Not Organized		
Med Detachment, 124th FA Bn	None	Chicago, Illinois	11 November 1947
Med Detachment, 210th FA Bn	Major Harold M. Perlmutter	Chicago, Illinois	13 November 1947
Med Detachment, 108th Engr Bn	Unit Not Organized		
44th Infantry Division, Surgeon	Lt Col E. W. Telford	Waukegan, Illinois	June 1947
203d Medical Battalion	Lt Col Ivar E. Dolph	Peoria, Illinois	17 February 1948
Med Detachment, 123rd Inf Regt	Unit Not Organized		
Med Detachment, 129th Inf Regt	Major S. P. Stackhouse	Ottawa, Illinois	7 July 1947
Med Detachment, 130th Inf Regt	Major E. T. Baumgart	Danville, Illinois	12 April 1948
Med Detachment, 44th Div Arty	Unit Not Activated		
Med Detachment, 209th FA Bn	Unit Not Organized		
Med Detachment, 123rd FA Bn	Unit Not Organized		
Med Detachment, 223rd FA Bn	Unit Not Organized		
Med Detachment, 178th Inf RCT	None	Waukegan, Illinois	10 April 1947
Med Detachment, 184th FA Bn	1st Lt Louis H. Coggs	Chicago, Illinois	11 April 1947
184th Medical Collecting Co.	1st Lt Wm. E. Cunningham	Chicago, Illinois	25 April 1947
Med Detach. 198th Trans Tr Bn	Captain Joseph I. Soffer	Chicago, Illinois	22 May 1947
Med Detach., 693rd AAA AW Bn	None	Chicago, Illinois	17 October 1947
Med Detach., 199th Trans Tr Bn	Unit Not Organized		
Med Detach, 698th AAA Gun Bn	None	Chicago, Illinois	11 November 1947
Med Detach., 396th AAA AW Bn	None	Chicago, Illinois	6 November 1947
Med Detachment, 172nd MP Bn	Unit Not Organized		
Med Detach., 106th Cav Sqad	Unit Not Organized		
Med Detachment, 768th AAA Bn	Unit Not Organized		
Med Detachment, 242nd AAA Bn	Unit Not Organized		
Med Detach., 135th Engr C Bn	None	Waukegan, Illinois	

Medical Officers Appointed to the New Illinois National Guard

Name	Rank	Location	Branch
Eldridge W. Telford	Lt Col	De Kalb, Illinois	MC*
John R. Tambone	Lt Col	Chicago, Illinois	MC
Arthur E. Higgs	Lt Col	Chicago, Illinois	MC
Gustav A. Schupmann	Major	Chicago, Illinois	MC
Standiford Helm	Major	Chicago, Illinois	MC
Wayne F. Cameron	Major	Chicago, Illinois	MC
Walter K. Robinson	Major	Chicago, Illinois	MC
Harold M. Perlmutter	Major	Chicago, Illinois	MC
Ivar E. Dolph	Lt Col	Chillicothe, Illinois	MC
Robert M. Younglove	Captain	Kewanee, Illinois	MC
Carleton R. Smith	Major	Peoria, Illinois	MC
George A. Olander	Captain	Chicago, Illinois	MC
Richard W. Karraker	Captain	Chicago, Illinois	MC
Milton Walter Buehrig	Captain	Chicago, Illinois	MC
John R. Brazelton	Major	Chicago, Illinois	MC
James P. Fairbirn	Captain	Chicago, Illinois	MC
Theodore I. Texidore	Captain	Chicago, Illinois	MC
Theodore F. Zmigrodski	Captain	Chicago, Illinois	MC
E. T. Baumgart	Major	Danville, Illinois	MC
Joseph I. Soffer	Captain	Chicago, Illinois	MC
Louis H. Coggs	1st Lt	Chicago, Illinois	MC
Louis Belinson	Captain	Ottawa, Illinois	MC
Stirling P. Stackhouse	Major	Ottawa, Illinois	MC
William E. Cunningham	1st Lt	Chicago, Illinois	MC

*MC — Medical Corps.

ious sojourns in the Southwest Pacific. There he directed the work of the battalion as it made history in support of the 33rd Infantry Division in its brilliant campaigns of New Guinea, Moratai and Northern Luzon. The outstanding way that the battalion evacuated wounded in the difficult Phillipine mountain terrain and the way the sick were cared for in the clearing company and finally the improvised clearing stations of the collecting company, were meritorious and worthy of commendation.

It is, therefore, no wonder that this unit is again out in the lead, having reached the half way mark in officer personnel at this early date. The enthusiasm and hard work of the present Commanding Officer, Lt Colonel John R. Tambone, of Oak Park, Illinois, has put the 108th Medical Battalion on top where it has always been.

Outstanding records of organization are being made by all medical units in the State of Illinois. Much is yet to be accomplished; many medical personnel are yet to be obtained. However, if the present record keeps up, the Illinois National Guard Medical Department will be one of the criterion departments in the country.

The Committee:

Lt. Col. Elbridge W. Telford, 44th Inf. Div. Sgn., co-chairman

Lt. Col. Ivar E. Dolph, Commanding Officer, 44th Inf. Div. Med. Bn, Co-chairman

Lt. Col. John R. Tambone, Commanding Officer, 33rd Div. Med. Bn

Lt. Col. Diggs 33rd Inf. Div. Sgn, Chicago, Illinois

Major Frank Lock, from the Commanding General of Troops Section. Chicago, Illinois

Medical Economics

The Medical Economics Committee — Chauncey C. Maher, Chmn., 6 North Michigan Avenue, Chicago. Edwin S. Hamilton, V. Thomas Austin, Emmet B. Bay, Jay McDonald Milligan, George Halperin, Marie Wessels, Thomas C. Browning, Roland R. Cross, Milton E. Bitter, Edwin F. Hirsch, Ford Hick, Carroll C. L. Birch, Hubert L. Allen.

MEDICAL EDUCATION OF THE GENERAL PRACTITIONER

The phenomenal advances in medicine and the related sciences in the past 40 years have been so diversified and so far reaching as to make specialization inevitable and highly desirable. Further contributions to the science and art of medicine will undoubtedly come from the specialist rather than the general practitioner. However, with all that is rightly claimed for specialization and the specialist as offering the most skilled type of service, one must not lose sight of the fact that specialization inevitably leads to fragmentation of medical service. In his concentration upon his special interest, be that the eye, ear or female pelvis, the specialist is likely to over-look the human organism as a whole. The problem is approached from the periphery, as it were, and extends toward the center rather than in the reverse order.

The function of the general practitioner is clearly to act as the integrator of the process of studying the patient as one whole psychosomatic unit. Add to this the fact that probably as high as 85 per cent of all human ills can be adequately cared for by the general practitioner, and his role in the medical practice of the future assumes an important and dignified position.

The problem of the medical educator therefore is to integrate medical training so as to create a competent general practitioner. That the problem is not simple is reflected in the opinion of Browning[1], that it is much more difficult to produce a competent general practitioner than a specialist. The general practitioner must deal with every conceivable emergency, must know when specialist help is required, and if such help is not available, to do the best that the circumstances allow.

It is felt by most educators that the educational system of the future should be geared to integration of medicine rather than to training of specialists. We should train the specialist to do an essential job not covered by the present specialties. The knowledge and skills of the general practitioner should be geared to preventive services and to the evaluation and treatment of the emotional stresses as well as the treatment of common illnesses by familiar medical technics. The general practitioner offers the simplest road to comprehensive medical care. Integration of medicine therefore can be best accomplished by the training of the good general physician. There has long been an effort on the part of some of the medical schools of this country to coordinate and correlate the diversified subject matter of medical curriculum. Carpenter[2], Dean of the Bowman Gray School Medicine, points out three major defects in the traditional medical curriculum, namely, departmental barriers, lack of proper balance in subject emphasis and failure to correlate the various aspects of the science and art of medicine at the undergraduate level. A teaching program was inaugurated in his school which relates all the subjects in the medical curriculum to one another and emphasizes the study of the whole man in health and disease. The aim is to find the common point between different fields of knowledge and to place special emphasis on that point.

(*Continued on page 242*)

State Department of Public Health

RAPID TREATMENT OF ASYMPTOMATIC NEUROSYPHILIS

L. M. Schuman, M.D., M.Sc.
Chief, Division of Venereal Disease Control
SPRINGFIELD

I. *Introduction.* — Supplementing the rapid treatment program for syphilis (Illinois Medical Journal, April, 1947, pg. 192), certain types of asymptomatic neurosyphilis are now eligible for penicillin therapy at State expense in downstate private facilities under contract with the Illinois Department of Public Health. The suitability of penicillin therapy in such cases has been demonstrated and the schedules described below will be applied in these facilities.

II. *Selection Of Cases.* —

A. The selection of cases of asymptomatic neurosyphilis for therapy with *penicillin alone* is dependent entirely on the *cerebrospinal fluid findings.*

B. The classification of such cases follows the Dattner-Thomas concept of spinal fluid activity which is herewith presented:

Spinal Fluid	Group I (minimal changes)	Group II (moderate changes)	Group III (maximal changes "paretic formula")
Cell count	*Increased above 7	Normal or elevated	Normal or *elevated*
Protein	*Increased above 37 mgm%	Normal or elevated	Normal or *elevated*
Complement-fixation	Negative	Positive with large amounts of fluid (0.2-1.0 cc.)	Positive with small amounts of fluid (0.1 cc. or less)
Colloidal tests	Negative	Curve of any type	"Paretic type" curve

C. Cases exhibiting spinal fluid changes of *Group I or Group II only* will be eligible for admission to contracted private hospital facilities.

D. Patients exhibiting spinal fluid changes consistent with a Group III classification *must* receive the benefit of fever therapy with or without penicillin as an adjunct, since it is this group which has a high rate of development of paresis or taboparesis.

1. Such cases may be referred for fever therapy to State Mental Hospitals as voluntary guest patients, or

2. They may be referred to the Chicago Intensive Treatment Center or the Midwestern Medical Center.

E. *Patients with cardiovascular syphilis complicating their asymptomatic neurosyphilis shall not be admitted for intensive penicillin therapy.*

1. These are special treatment problems, since the danger of fatal Herxheimers exists.

2. Such patients may be referred to the Chicago Intensive Treatment Center or the St. Louis Midwestern Medical Center.

III. *Referral Of Patients By Private Physicians.* —

A. Prior to referral, an adequate spinal fluid examination shall have been performed for the patient.

B. The diagnostic and referral fee paid for cases of early infectious, potentially infectious and early congenital syphilis, as well as for syphilitic pregnancies *will not be paid* for asymptomatic neurosyphilis.

*Since the *cell count* and *protein content* are the significant tests in this differential diagnosis, it is imperative that these be performed!

C. Where clinic facilities are accessible, medically indigent patients may receive spinal fluid examinations at such clinics.

D. In areas not accessible to clinics, medically indigent patients may obtain spinal fluid examinations from the physician of their choice, but at State expense, *provided* that:

1. Such an examination is authorized by the Division of Venereal Disease Control through the full-time city, county or district health officer, and

2. The examination includes a cell count on the fresh spinal fluid.

E. A fee of $10 will be paid for spinal fluid examinations performed by a private physician for *medically indigent* patients provided that the examination includes the cell count on fresh fluid.

F. Physicians will contact their full-time health officer for admission of their cases of asymptomatic neurosyphilis.

IV. *Treatment.* (Classes I and II asymptomatic neurosyphilis.) 50,000 units aqueous penicillin (Crystalline G) *intramuscularly every 2 hours* for a total of 6,000,000 units in 10 *days.*

V. *Post-Treatment Follow-Up.* —

A. Patients will be referred back to their initial physician or venereal disease clinic.

B. For patients discharged from the Chicago Intensive Treatment Center or the Midwestern Medical Center, the follow-up schedule appearing on the respective abstracts of treatment from these institutions should be followed.

C. For patients discharged from downstate private hospital facilities, a suggested routine of follow-up would include a re-examination of the spinal fluid in 6 months after discharge and again at 12 months.

1. The cell count and protein content attain normality very rapidly, usually by the 10th to 12th week following treatment. This is, however, dependent on the duration of the infection.

2. The complement fixation test and the colloidal tests revert to negativity slowly and are usually negative, especially for *early* asymptomatic neurosyphilis, by the 6th month.

3. Some fluids remain fixed as to complement fixation tests and colloidal tests but show a return to normal with respect to the cell count and protein content. These are considered "inactive" fluids according to the Dattner-Thomas concept.

VI. *Indications For Re-Treatment.* —

A. Cases whose spinal fluid examinations reveal no return to normality with regard to the cell count or protein content by the 6th month. should be re-treated, employing a fever regime.

B. Patients revealing an "inactive" fluid on re-examination need not be re-treated, provided they maintain this "inactivity" on the 12-month examination.

VII. *Penicillin For Private Cases.* — Physicians may obtain penicillin for their cases of asymptomatic neurosyphilis who can afford private hospital care merely by requesting the drug from the Division of Venereal Disease Control, Illinois Department of Public Health and provided only that:

1. The case is reported;

2. The recommended schedules are followed;

3. An abstract of treatment is returned to the Illinois Department of Public Health upon completion of therapy.



MEDICAL ECONOMICS (Continued)

There should be little doubt in anyone's mind as to the role of the practitioner in the future practice of medicine in this country. It is with the view of creating the good general physician that the medical curriculums of this country are geared toward integration of medicine rather than training of specialists. G.H.

REFERENCES

1. Browning, C. H.: Equipment for the Calling of Medicine. Glasgow M. J. 27: 63 (March) 1946.
2. Carpenter, C. C.: Integration and Organization of the Medical Curriculum, J. Assoc. Am. Med. Colleges, 22: 30 (Jan.) 1947.

Medico-Legal Briefs

Answers to medico-legal problems of general interest submitted to the Editor will be answered in this department.

PAYMENT FOR SERVICES RENDERED PUBLIC AID RECIPIENTS

The Question

"The physicians in our county object to the present method of paying for services rendered recipients of the Public Aid Program by the Illinois Public Aid Commission. You no doubt know that payments for these medical services are paid to the recipient who in turn is supposed to pay the physician. Unfortunately in too many cases the patient forgets to pay the physician using the additional allowance for personal expenditures.

Our county society objects to this procedure and would like to have the State Medical Society insist that direct payment to physicians be instituted as soon as possible. Will you please in your columns comment on this situation and show why direct payments should not be insisted upon. We would also appreciate any additional information we can get on this subject."

This question was referred to officials of the Illinois Public Aid Commission, and the reply was submitted by the Chairman of the Medical Advisory Committee to the I.P.A.C.

The Answer

The public aid funds in Illinois are from two separate sources: (1) from State taxation in which the funds are entirely under the control of the State and (2) a considerably larger amount derived from Federal Aid Funds. Of course the Federal Government takes a very large amount of money from the State and returns a small amount to us again for use under certain prescribed circumstances, but in order to get this amount back it is necessary for the State to live up to the stipulations laid down by the Federal Government. Under the Social Security program the funds to be returned for Old Age Assistance, Aid to Dependent Children, etc. must be spent according to certain qualifications laid down by the Bureau. As I understand it these regulations are not part of laws passed by Congress but are bureaucratic regulations which have the effect of law because there is no one over the bureaus to correct or question their decision. Therefore, until Congress puts out specific laws to change some of the bureaucratic habits or customs, these manifestos have the force of law. One of these rulings is to the effect that a state which receives Federal Aid must give to the recipient of any public assistance program the funds directly to said recipient and not to pay his bills for him. The State would prefer direct payment and I believe most, or probably all, of the Department of Public Assistance in Illinois would much prefer to pay the medical bills direct.

Inasmuch as the hospital program as it has been elaborated, constitutes only a small amount of the welfare expense, the Illinois Department has taken it upon itself to pay that directly and also to pay death benefits directly out of State funds without any Federal matching. But in order to get by on the amount appropriated by the Legislature it is necessary to have Federal matching for a large amount of these funds and this is used, among other things, for the medical care of the public assistance recipients. Until

the Federal regulation is changed it will be impossible to have direct payment unless the State should decide to forego all Federal assistance which it is not financially able to do at the present time.

Incidentally, for the next biennium the Legislature was asked by the Department of Public Assistance to appropriate an amount which the Department felt was an absolute minimum for the program as it has been developed. This amount was $212,000,000. The Legislature, in an attempt at economy, cut this to approximately $175,000,000 which is going to leave a considerable deficit before the two years have elapsed. Because of this deficit which will be a practical certainty unless some deficiency appropriations are passed, the Department of Public Assistance is being compelled to curtail its expenses in every way possible including medical expenses and therefore cannot afford to forego the use of Federal funds.

Several attempts have been made to introduce legislation in Washington to permit the use of Federal funds in direct payment but these bills have always been attached as riders to other bills. some of which were undesirable, and none of which passed through Congress. There is a strong probability that some such bill will eventually pass but until that time, the State will either have to pay the recipient directly or forego Federal aid and this latter the Legislature is apparently unwilling to do.



RECOMMEND HUMAN HYPERIMMUNE SERUM FOR WHOOPING COUGH

Human hyperimmune serum or globulin is more effective than rabbit immune serum and should be used in the treatment of all infants who are seriously ill with whooping cough, according to a study made at the Willard Parker Hospital of the Department of Hospitals in New York. Jerome L. Kohn, M.D., Gittel Rudel, M.D., Lillian Buxbaum, B.S., Alfred E. Fischer, M.D., Catherine Dodyjensky, M.D., New York, Manfred Weichsel, M.D., of Long Island City, and Dorothe H. Gunthier, M.D., Cranford, N.J., are the authors. This paper appeared in the *American Journal of Diseases of Children,* published by the American Medical Association.

A group of 201 young patients with whooping cough was studied. Of these, 43 received serum from human donors who had acquired immunity to the disesase—immunity which is given either by inoculations with Hemophilus pertussis, an organism found in patients with whooping cough, or by recovery from the illness itself; 109 received a concentrated globulin or protein fraction extracted from this serum. These 152 were the youngest or sickest patients. The other 49 received a globulin obtained from rabbit serum.

"The subsequent condition of the infants under one year of age who received the human serum was considered improved in 70 of 79 patients, or 88.6 per cent," the article says. "The apparent response to the serum of patients over one year of age was not so striking. . . . Improvement was noted in 66.6 per cent. . . . It is conceivable that greater improvement would have occurred in the condition of these children with whooping cough had larger amounts of serum consistently been given the older patients. We were unable to do this because of the limited amount of serum available."

"A decrease in paroxysms occurred earlier in the course of whooping cough in this study than was noted in previous years," the article continues. "Emesis was less frequent. The nurses stated that during the months the serum was being administered the ward was quieter both day and night. This was especially true of the infants.

"The rabbit serum was given to 49 children, of whom only nine were under two years of age. Of this group of nine children the clinical course of the disease was considered satisfactory in only one. Even in the children of the older age group, the course of the illness was not so favorable as in those children who had been given human serum (14 children or the 40 showed improvement). . . .

"During a five year period the death rate for the infants less than one year of age under our observation who did not receive serum was . . . 4.9 to 6.7 per cent. Our data demonstrated that the mortality rate for the infants under one year who received serum [1.2 per cent] was lower than that for infants who did not receive serum."

Correspondence

CMS TO HOLD TWO POSTGRADUATE COURSES

The Chicago Medical Society is offering physicians of the country two postgraduate courses in September. A course in hemotology and neurology will be given September 13 — September 18 and another in cardiovascular and respiratory diseases will be given Septembr 20 — September 25, 1948.

The sessions will be held in Thorne Hall on Northwestern University Medical School campus.

An outstanding group of teachers from all sections of the United States will make up the faculty.

Information may be secured by writing the Chairman, Committee on Postgraduate Medical Education, Chicago Medical Society. 30 North Michigan Avenue, Chicago 2. Illinois.

OPPORTUNITIES FOR NAVAL RESERVE MEDICAL OFFICERS

The Naval Air Reserve Training Command, with headquarters at Naval Air Station, Glenview, Illinois, has 18 nationally located Naval Air Stations and 4 Naval Air Reserve Training Units at which Naval Reserve Medical Officers may serve on active duty with full pay and allowances and with the privilege of returning to civilian life at any time upon request. Additional details may be obtained from Chief of Naval Air Reserve Training, Naval Air Station, Glenview, Illinois.

CHICAGO DERMATOLOGICAL SOCIETY ELECTS NEW OFFICERS

At the meeting of the Chicago Dermatological Society held January 21, 1948, the following officers were elected:

President: Dr. S. W. Becker
Vice-President: Dr. Theodore Cornbleet
Secretary-Treasurer: Dr. Leonard F. Weber

THE AMERICAN CONGRESS OF PHYSICAL MEDICINE

Will hold its twenty-sixth annual scientific and clinical session Sept. 7, 8, 9, 10 and 11 inclusive, at the Hotel Statler. Washington. D. C. Scientific and clinical sessions will be given the days of Sept. 7, 8, 9, 10 and 11. All sessions will be open to members of the medical profession in good standing with the American Medical Association. In addition to the scientific sessions, the annual instruction courses will be held Sept. 7, 8, 9 and 10. These courses will be offered in two groups. One set of ten lectures will be based primarily on physics and physiology and attendance will be limited to physicians. One set of ten lectures will be more general in character and will be open to physicians as well as to physical therapists. The physical therapists must be registered with the American Registry of Physicl Therapy Technicians. Full information may be obtained by writing to the American Congress of Physical Medicine, 30 North Michigan Avenue, Chicago 2. Illinois.

DERMATOLOGISTS TO MEET IN CHICAGO JUNE 20TH

The Society for Investigative Dermatology will hold its ninth annual meeting at the Hotel Sherman, Chicago, on Sunday, June 20th.

The scientific sessions will run from 10:00 A. M. to 6:00 P. M., with an interval for lunch, and will be followed by a dinner at the Hotel Sherman which will be open to members and guests of the Society.

HEMATOLOGISTS TO MEET IN BUFFALO

The International Society of Hematology will hold its bi-annual meeting at the Hotel Statler in Buffalo, New York, August 23-26, 1948.

The following time has been tentatively allotted for symposia and presentations: ½ day on general subjects, including radioactive and stable isotopes in hematology; ½ day for problems and diseases related to the red celis;½ day for problems and diseases related to the white cells; 1 day for immunohematology, Rh-Hr (CDE-cde) antigens and antibodies, and hemolytic anemias; ½ day for coagulation problems and hemorrhagic diseases; and ½ day for business meeting.

Applications for the presentation of scientific exhibits are now being received by Dr. O. P. Jones, Department of Anatomy, University of Buffalo, Buffalo, New York. Chairman of the Program Committee is Dr. Ernest Witebsky, Buffalo General Hospital, Buffalo, New York.

All scientific sessions and exhibits will be open to scientists interested in hematology. This will, of course, include members of the medical profession and those branches of science dealing with hematology, such as biochemistry, biophysics, genetics, immunology, etc.

Those interested in attending the meetings may communicate with Dr. Sol Haberman, Secretary, The William Buchanan Blood Center, Baylor Hospital, Dallas, Texas.

EXAMINATIONS FOR CHEST PHYSICIANS

The Board Of Examiners of the American College of Chest Physicians announces that the next oral and written examinations for Fellowship will be held at Chicago, June 17, 1948. Candidates for Fellowship in the College, who would like to take the examinations, should contact the Executive Secretary, American College of Chest Physicians, 500 North Dearborn Street, Chicago 10, Illinois.

The Fourteenth Annual Meeting of the America College of Chest Physicians will be held at the Congress Hotel, Chicago, Illinois, June 17-20, 1948. An interesting scientific program has been arranged for this meeting, and speakers from several other countries are scheduled to appear.

ANNOUNCEMENT TO ALL COUNTY MEDICAL SOCIETY OFFICERS

You are herewith invited to participate in the third national conference of county medical society officers Sunday — June 20, 1948 — 2:00 P. M. — 5:30 P. M.

The subject for discussion is *The Job Of The County Medical Society.* The program will consist of three panel discussions — each to be followed by an open question and answer period: The County Medical Society — *Its Part In Medical Organization,* The County Medical Society — *Its Responsibility To Its Membership,* and The County Medical Society — *Its Responsibility To The Public.*

AMERICAN PHYSIOTHERAPY ASSOCIATION ANNUAL CONFERENCE

To be held at the LaSalle Hotel, Chicago, Illinois
May 23-28th, 1948

PROGRAM

SUNDAY, MAY 23

3:00 P.M. Registration.

4:00-5:00 P.M. Open hearing on by-laws.

7:30 P.M. Formal opening of 25th Annual Conference — Sue Reen, President, American Physiotherapy Association.

Greeting from the Illinois Chapter — Dorothy Stults, President.

Greeting from American Congress of Physical Medicine — H. Worley Kendell, M.D., President.

"The Physical Therapist in the Expanding Program of Medical Care" — Hart E. Van Riper, M.D., Medical Director, National Foundation for Infantile Paralysis.

MONDAY, MAY 24

9:00-12:00 noon General Session, House of Delegates.

12:00-2:00 P.M. Luncheon.

2:00-3:30 P.M. "Management of Patients with Spinal Cord Injuries and Demonstration of Patient" — Louis B. Newman, M.D., Chief, Phys-

ical Medicine Rehabilitation, Veterans Administration Hospital, Hines, Illinois, and Physical Therapy Staff.

3:30-4:00 P.M. Viewing of Exhibits.

4:00-5:00 P.M. "Nerve and Tendon Injuries of the Hand" — Sumner L. Koch, M.D., Professor of Surgery, Northwestern Medical School.

7:30-9:00 P.M. Movies.

Meeting National and Chapter Committee Chairmen.

TUESDAY, MAY 25

9:00-12:00 noon "Physiological Basis of Muscle Reeducation" — Harry D. Bowman, M.D., Professor of Physical Medicine, University of Wisconsin.

12:00-2:00 P.M. Luncheon.

2:00-3:30 P.M. "Contribution of the Physical Therapist to Nursing Education" — Panel Discussion and Demonstration — Jessie Stevenson and guest speakers to be announced.

3:30-4:00 P.M.Viewing of Exhibits.

4:00-5:00 P.M. "The Use of Physical Therapy for the Psychiatric Patient" — Speaker to be announced.

7:30-9:30 P.M. General Session, House of Delegates.

WEDNESDAY, MAY 26

9:00-10:30 A.M. Papers on Research — to be announced.

10:30-11:00 A.M. Viewing of Exhibits.

11:00-12:00 noon "Anterior Poliomyelitis: Early and Late Treatment of Muscle by Electrical Muscle Stimulation" — Stafford L. Osborne, Ph.D. Associate Professor of Physical Medicine, Northwestern University.

12:00-2:00 P.M. Luncheon.

2:00-3:30 P.M. "Treatment of Poliomyelitis: The Functional Viewpoint" — Emil D. W. Hauser, M.D., Assistant Professor of Bone and Joint Surgery, Northwestern University.

3:30-4:00 P.M. Viewing of Exhibits.

4:00-5:00 P.M. "Importance of Functional Testing and Functional Re-training in the Care of Convalescent Poliomyelitis Patients" — Robert L. Bennett, M.D., Director of Physical Medicine, Georgia Warm Springs Foundation.

7:30 P.M. Banquet (informal)

THURSDAY, MAY 27

9:00-12:00 noon General Session, House of Delegates.

12:00-2:00 P.M. Luncheon.

2:00-3:30 P.M. "Physiology of Peripheral Circulation including Pharmacology" — David I. Abramson, M.D., Clinical Assistant Professor of Medicine, University of Illinois.

"Peripheral Vascular Disease: Clinical Aspects and Treatment, including Physical Therapp" — Geza de Takats, M.D., Clinical Associate Professor of Surgery, University of Illinois.

FRIDAY, MAY 28

9:00-12:00 noon School Section

2:00-5:00 P.M. School Section

All Day Tours selected to the Physical Therapy Departments in Chicago.

WOMAN'S AUXILIARY TO A.M.A. 25TH ANNUAL MEETING, JUNE 20-24

HOTEL LASALLE, HEADQUARTERS, CHICAGO

A cordial invitation is extended to all women, who are auxiliary members or guests of physicians attending the convention of the American Medical Association, to participate in all social functions and attend the general sessions. Whether Auxiliary members or not, the wives of doctors will be most welcome.

Please register early and obtain your badge and program of the social functions. Registration Hours on Sunday, June 20 are from 2:00 to 4:00 P.M. on succeeding days from 9:00 A.M. to 4:00 P.M.

PROGRAM

PRE-CONVENTION MEETINGS

SUNDAY, JUNE 20

Committee Meetings

2:00 to 4:00 P. M. Registration (mezzanine floor)

8:00 P.M. Finance Committee — Room B (mezzanine floor) Mrs. Scott C. Applewhite, Chairman.

MONDAY, JUNE 21

9:30 A.M. Board of Directors — Room B (mezzanine floor) Presiding, Mrs. Eustace A. Allen, Pres.

10:00 A.M. Nominating Committee — Room A (mezzanine floor) Mrs. David M. Thomas, Chairman.

12:30 P.M. Luncheon of Board of Directors — Room C (mezzanine floor)

4:00 P.M. Tea in honor of Mrs. Eustace A. Allen, President and Mrs. Luther H. Kice, President-Elect, Woman's Auxiliary to the American Medical Association, Century Room. Tickets, $1.25. All doctors' wives cordially invited. Hostesses: Auxiliaries to the Illinois State Medical and to the Chicago Medical Society.

8:00 P. M. Revisions Committee Meeting — Room B (mezzanine floor) Mrs. Roscoe E. Mosiman, Chairman.

TUESDAY, JUNE 22, 1948

9:00 A.M. Formal Opening. Illinois Room. Presiding, Mrs. Eustace A. Allen, President; Pledge of Loyalty to the Woman's Auxiliary to the American Medical Association, Mrs. Jesse D. Hamer; Greetings, J. Roscoe Miller, M.D., President, Chicago Medical Society; Address of Welcome, Mrs. John Soukup, Immediate Past President, Woman's Auxiliary to the Illinois State Medical Society; Response, Mrs. Robert Flanders, President, Woman's Auxiliary to the New Hampshire Medical Society; Presentation of Convention Chairman, Mrs. Rollo K. Packard; Presentation of President-Elect, Mrs. Luther H. Kice; Introduc-

tions, Mrs. Eustace A. Allen; Roll Call, Mrs. George Turner, Constitutional Secretary; Minutes of the Twenty-Fifth Annual Meeting, Mrs. George Turner; Convention Rules of Order, Mrs. John S. Bouslog; Credentials and Registration, Mrs. James M. McDonnough; Address of the President, Mrs. Eustace A. Allen; Reports of Officers.

12:00 P.M. Luncheon in honor of the Past Presidents of the Woman's Auxiliary to the American Medical Association, Grand Ballroom. Tickets, $3.50. Mrs. Rollo K. Packard, past president, presiding. Guest Speaker, Morris Fishbein, M.D., Editor, Journal of American Medical Association and HYGEIA.

AFTERNOON SESSION

2:00 P.M. Report of the Board of Directors, Mrs. Eustace A. Allen; Reports of Chairmen of Standing Committees; Report of the Historian, Mrs. Jesse D. Hamer; Report of the Central Office and Bulletin Circulation, Miss Margaret Wolfe; Report of the Nominating Committee (first reading) Mrs. David W. Thomas, Chairman; Election of the 1949 Nominating Committee.

4:00 P.M. Round Table Discussion.

8:00 P.M. Opening Meeting of the American Medical Association, Grand Ballroom, Hotel Stevens. Members of the Woman's Auxiliary and guests are welcome.

WEDNESDAY, JUNE 23, 1948

9:00 A.M. General Session, Illinois Room (mezzanine floor) Presiding, Mrs. Eustace A. Allen; Greetings, Warren W. Furey, M.D., Chairman, Local Committee on Arrangements, A.M.A.; Minutes, Mrs. George Turner; Announcements, Mrs. Rollo K. Packard; Credentials and Registration, Mrs. James M. McDonnough; In Memoriam, Mrs. Van Buren Philpot; Resolutions, Mrs. Henry Garnjobst; Reports of State Presidents.

12:30 P.M. Annual Luncheon honoring Mrs. Eustace A. Allen, President, and Mrs. Luther H. Kice, President-Elect, Grand Ballroom, Tickets, $3.50. Mrs. Eustace A. Allen, Presiding; Guests of Honor, Dr. Edward L. Bortz, President; Dr. R. L. Sensenich, President-Elect; Dr. J. J. Moore, Treasurer; Dr. George F. Lull, Secretary and General Manager; Dr. Morris Fishbein, Editor of the Journal and HYGEIA, and the Members of the Advisory Council of the Woman's Auxiliary to the American Medical Association.

2:00 P.M. Joint meeting of the Advisory Council of the American Medical Association and the Board of Directors of the Woman's Auxiliary.

AFTERNOON SESSION

2:30 P.M. Unfinished Business; New Business; Report of the Nominating Committee, Mrs. David W. Thomas; Election of Officers; Installation of Officers and Presentation of President's Pin, Mrs. Frank W. Haggard; Inaugural Address, Mrs. Luther H. Kice; Courtesy Resolutions, Mrs. Arthur J. McCarey; Minutes, Mrs. George Turner; Adjournment.

THURSDAY, JUNE 24, 1948

9:30 A.M. Meeting of the Board of Directors, Room B (mezzanine floor) Presiding, Mrs. Luther H. Kice.

6:30 P.M. Annual Dinner of the Woman's Auxiliary for members, husbands and guests, Grand Ballroom (19th floor). Tickets, $4.00.

9:00 P.M. Reception and Ball in honor of the President of the American Medical Association — Palmer House.

LOCAL COMMITTEE ON CONVENTION ARRANGEMENTS

Mrs. Rollo K. Packard, Chairman

Mrs. James P. Simonds	Mrs. John Soukup
Mrs. Arthur I. Edison	Mrs. L. N. Hamm
Mrs. G. Henry Mundt	Mrs. James M. McDonnough
Mrs. Lucius Cole	Mrs. Henry L. Schmitz

Mrs. Nathaniel Baskind — Secretary-Treasurer

Chairmen of Sub-Committees

Credentials and Registration — Mrs. James M. McDonnough, Chairman

Information and Tour — Mrs. Arthur I. Edison, Chairman

Tickets and Reservations — Mrs. W. J. Wanninger, Chairman

Publicity — Mrs. G. T. Buttice, Chairman

Messengers — Mrs. Roy W. Hutchison, Chairman

House — Mrs. O. J. Rabe

Reception — Mrs. G. Henry Mundt, Chairman

Tea — Mrs. James M. McDonnough, Chairman

Luncheon, Tuesday — Mrs. Henry L. Schmitz, Chairman

Wednesday — Mrs. Harold W. Miller, Chairman

Dinner — Mrs. M. M. Hipskind, Chairman

Election — Mrs. Fred Moore

Timekeepers — Mrs. G. G. Woodruff, Chairman

Reading Committee — Mrs. James P. Simonds, Chairman

Original Articles

REPAIR OF LONG BONE DEFECTS WITH MASSIVE BONE GRAFTS

CARLO SCUDERI, MD. PHD.
Former Colonel of the Medical Corps
CHICAGO

Introduction. — Bone graft surgery received its original impetus in World War I when a large number of individuals sustained fractures of the long bones with loss of bone substance and developing non-unions. These cases required rehabilitation. A substantial number of cases came into the hands of a select few who did a great deal to bring the concept of modern bone graft surgery up to a high pinnacle of perfection. Among these men probably the best known and the one who did most to popularize this was Dr. Frederick Albee of New York.

From World War I to the recent conflict a number of cases were done by individual orthopedic surgeons who perfected certain operative procedures or devised certain gadgets to make the technical side of bone graft surgery easier and more efficient. No one individual gained a great deal of experience in bone graft surgery because in civilian life, the number of cases requiring this type of treatment are relatively few, even in such large institutions as the Cook County Hospital in Chicago. For this reason the progress of bone graft surgery was slow and little advancement was made from the days of 1918 to 1920, when most of the bone graft surgery was performed on the casualties of the last war.

During World War II, when a large number of men were under arms and a great many casualties occurred, the incidence of long bone defects became the greatest in history of man. The type of warfare with high explosives and high velocity shells produced injuries to such an extent as were heretofore unknown. With the advent of excellent emergency treatment at the front, the use of sulfa drugs and penicillin, a large number of cases that would formerly have been amputated were saved and returned to the Zone of the Interior where definitive work could be undertaken in highly specialized hospitals by men who were well qualified to do this work, prior to their entrance into the Army.

The Surgeon General's office deserves a great deal of credit for having wisely chosen in most instances men of good clinical experience in civilian life to head the Departments of Orthopedic Surgery in the large general hospitals in the Zones of the Interior. In this manner a great many cases requiring bone graft surgery came into the hands of well trained operative teams who had worked together for many months, and in a number of instances for several years. Consequently the efficiency of this surgery improved tremendously. In many installations, the same surgical nurse was employed day in and day out, month after month. By necessity the operative team became far superior to any operative team that is usually found in civilian life.

This paper is written on personal experiences gained by the author when he was Chief of Orthopedic Surgery at McGuire General Hospital in Richmond, Virginia. During his period of time in the service he personally operated 94 cases requiring bone graft surgery with three infections and one refracturing of the graft that

From The Department of Surgery, University of Illinois, Cook County Hospital Fracture Service.

required a second grafting of the area. This made a total of 4 failures out of 94 cases. All of these operations were done in former compound infected fractures, in many instances with a substantial amount of loss of soft tissue, which in itself adds a grave element of danger.

Pre-Operative Requirements. From experience gained in civilian life a number of the fundimental principles of bone graft surgery were learned. These principles were employed on the battle casualties in the general hospitals throughout the country. Certain requirements had to be met as one gained more and more experience. With the advent of chemotherapy many things could be done in bone graft surgery which prior to this age were prohibitive or impossible.

The three pre-operative requirements which the author feels were most essential are as follows:

1. No drainage should have existed in the operative field for a minimum of at least three months. In civilian life prior to the advent of sulfa drugs and penicillin, no attempt at bone graft surgery was done under a minimum of nine to twelve months from the cessation of drainage, but with the use of these drugs it was found that operative intervention could be undertaken in a minimum time of three months after the wound had stopped suppurating.

2. It is imperative that good skin and subcutaneous tissues cover the area to be grafted. Unless there is good skin and subcutaneous tissue the underlying implanted bone graft will not have an opportunity of becoming revascularized and becoming living bone instead of a foreign body. Fortunately in most general hospitals plastic surgeons were available and in addition most of the orthopedic surgeons became very skilled at swinging skin grafts of the pedicle or flap type and most of them became very good at the use of the Paget's dermatone, so that large areas could be grafted without too much difficulty.

3. Adequate pre and postoperative penicillin and sulfa drug therapy must be given in all cases. It was our procedure to give all patients 90 grains of sudfadiazine a day for 72 hours prior to surgery and for 14 days postoperatively until such a time as the sutures were removed and the wound clean. In addition pencillin was given, 25,000 units every three hours, during the same period of time. Under the screening of sulfadiazine and pencillin it was the author's impression that these cases did far better than similar cases, done in civilian practice.

Mechanics Involved in Bone Graft Surgery. The type of grafts that were used are three:

1. Cancellous bone grafts from the wing of the ilium. These were used to fill in large bone defects where mechanical stability was not required.

2. Tibial bone grafts were used when large bone defects had to be bridged and mechanical stability was necessary. The author preferred the use of the crest of the tibia in all cases where strength plus massive bone graft was necessary such as in the femur or in the humerus. Grafts taken from the central portion of the tibia were used when a massive amount of bone was necessary, yet strength was not so essential to keep the graft from refracturing. This was found to be true in fractures such as the radius, ulna and tibia.

3. Fibular grafts were used in a number of cases where large defects existed in the humerus or femur as this gave an excellent bone in order to bridge spaces of five and six inches. In some instances fibular grafts were used in conjunction with tibial grafts from the other leg. It was found that the fibula could be sacrificed most extensively provided of course that one did not come within three inches of the external malleolus and that one did not approach the head of the fibula in the area where the external peroneal nerve was found. This gave grafts as long as seven to eight inches if necessary, to be used to restore an entire shaft of one of the smaller bones such as the radius or the ulna.

In some cases a combination of the three above mentioned grafts were used depending on the type of defect which had to be filled.

In order to gain the maximum efficiency of the graft and in order to obtain the greatest percentage of takes, certain basic mechanical and physiological principles had to be accepted and followed. It is a well recognized fact that a bone graft which is snugly fit into a bed that has been accurately made for its reception will do much better than a graft which is purely laid on the surface of a long bone. There is no question but that maximum bone contact is essential between the host bone and grafted bone if one is to obtain the greatest percentage of successful takes.

The bone graft must be massive enough to give an adequate mechanical support all by itself. This

means that the grafted piece of bone must have, in itself, not only bone in which to produce a complete repair of the defect, but in itself, must be strong enough that by mechanical fixation with screws to the host bone, it will give all of the stability necessary. Dr. Dallas Phemister showed many years ago that if a bone graft is to be done, it must be massive enough to be of some functional benefit. The use of several small grafts is fallacious and the use of a small graft with metal plate, in itself, is an admission of the operator that he does not feel that the graft is large enough to be of mechanical value and for this reason a plate is inserted.

The general conformation of the grafted bone must, by necessity, tend to re-establish the normal contour of the host bone. By so doing there is the least amount of interference with the overlying muscles and tendons during their action in locomotion or motion of the extremity. Sharp corners are to be avoided and bulky masses of bone directly below the skin and subcutaneous tissue are most harmful and do not do well as far as revascularization and viability is concerned.

Firm immobilization of the grafted bone to the host bone adds materially to shortening the time necessary for revascularization and firm bony union between the bones. This can best be obtained by firm contact maintained by the use of metallic screws. Gaps between the grafted bone and the host bone interfere with the revascularization and the unification of the bone into one solid mass. It is much the same principle as is involved in the transplantation of creeping bent grass. If there is space between the underlying bed in the transplanted grass, the successful takes are not as good as if the space is completely obliterated and the roots of the grass are brought in firm contact with the underlying earthen bed.

It is a well known principle of carpentry that if two pieces of wood are to be drawn firmly together and held so that glue will firmly unite both pieces as one solid piece of wood, it is necessary to draw the two pieces of wood in firm contact. This is obtained by drilling a pilot hole through both pieces of wood so that the threads of the screw can grip firmly into the material. Then by the use of a larger drill, that is the size of the shank of the screw, the proximal piece of wood is drilled a second time so that when the screw is inserted there is no actual gripping into the proximal piece of wood and the threads engage only in the distal fragment. Then when the screw is firmly twisted into the distal piece of wood, the shoulder of the screw head draws the proximal piece of wood by firm pressure against the distal piece of wood. In this manner only, are we able to utilize the principle of vise action to draw the pieces together. If the threads engage both the proximal and distal piece of wood there is no actual drawing together power when the screw is firmly set, but it is simply immobilization at a fixed distance between the two pieces of wood. This principle has been known for many years by carpenters. Unfortunately this basic principle is either not known or totally ignored by a large number of men who do occasional bone surgery. For this reason it is necessary in doing bone grafts when it is hoped to draw the grafted and host bones together, to drill not only a pilot hole but also a shank hole through the proximal piece of bone in order to utilize this principle of vise-like action to draw the grafted bone against its host.

The author's experience has been that these grafts take far better than those where the graft simply laid in contact with the host bone and then by direct soft tissue pressures hope to produce a bony union from bone growth between the grafted and host bones.

Post Operative Care. It is most important that after a fine piece of bone graft surgery has been performed that this area be protected by external immobilization. It is the author's experience that in most instances, the best form of immobilization is a plaster paris cast. The sutures are as a rule removed on about the fourteenth day and then a snug fitting cast is applied to the extremity. It must be remembered that long immobilization is most important. Many a good graft has been lost because of the over enthausiam and optimism of the operating surgeon. Grafts to the femur require at least seven to nine months to give the strength which is necessary before external support can be removed. In femoral grafts it has been the writer's experience to require immobilization in plaster somewhere in the vicinity of four to six months and then permit the patient to have physiotherapy and use of the

leg on a Pierson attachment to a Thomas splint in order to immobilize the extremity as much as possible. Then the patient is permitted to be up and around with a long leg caliper and this is used until clinically and radiographically it is believed to be safe to premit the removal of the brace.

In fractures of the humerus, immobilization and guarded protection is necessary for at least six months if a large graft has been inserted. In fractures of the radius and ulna usually three to four months of immobilization is adequate with a warning that no heavy work is to be done with the extremity for at least three to four months thereafter.

In the tibia, as a rule, six to nine months is required before unprotected weight bearing is permitted.

It must be clearly understood that in bone graft surgery where good immobilization has been applied with a large graft, there is very little callus formation as one sees, secondary to ordinary fractures with healing. In fact, there is practically no extra osseous callus visible. Only the base of the graft is found to become more homogeneous as time goes on and eventually the edge between the graft and the host bone completely disappears.

CONCLUSIONS

Pre-Operative Requirements:

1. No drainage for at least three months.
2. Good skin and subcutaneous tissue must cover the area to be grafted.
3. Adequate pre and post operative Penicillin and Sulfadiazine must be used.
4. Maximum contact of fresh bone to fresh bone is imperative for a maximum number of successful takes.
5. Grafts must be massive enough to give adequate support.
6. General conformation of the grafted bone to the host bone is essential.
7. Firm immobilization of the graft to the host bone is imperative by the use of metallic screws.
8. Long immobilization and careful protection of the graft is necessary months after surgery has been performed.

By following the above basic principles the incidence of successful takes of massive bone grafts will be surprisingly high.

IMMUNIZATION OF CHILDREN WITH INFLUENZA VIRUS VACCINE

Clinical Observations

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The effectiveness of influenza virus vaccine has been evaluated in a number of published reports. For many years the etiological agent of the disease, influenza, was unknown and diagnosis was on the basis of clinical characteristics. In the studies of Smith, Andrews and Laidlaw[1] and Francis,[2] types A and B viruses were identified in throat washings from patients with typical symptoms of the disease. Stuart-Harris[3] states that influenza virus B resembles A in many of its properties, but is absolutely distinct in antigenic properties.

Francis and his associates,[4] using subcutaneous injections of a type A and B vaccine for vaccination of human subjects, produced an infection later by spraying active type A virus into the nostrils of vaccinated individuals and non-vaccinated controls. Clinical symptoms developed in 50 per cent of the non-vaccinated controls, in 32 per cent of those vaccinated four and one-half months previously, and in 14 per cent of those vaccinated two weeks before innoculation.

Antibody titres were done on all subjects prior to the induced infection and in those with low pre-infection titres, the incidence of infection was high. In a similar observation[5], using type B influenza virus for inducing infection, a clinically recognized disease was observed in 41 per cent of the non-vaccinated controls, in 7 per cent of the group vaccinated four and one-half months previously, and in 13 per cent of those vaccinated 4 weeks previously. Henle and coworkers[6] concluded from a clinical study that protection from vaccination is for at least 4 months. The enormous variation in antibody response which occurs even among those individuals who possessed similar prevaccination antibody titres has been demonstrated[7].

The Commision on Influenza, Board for the Investigation and Control of Influenza and Other Epidemic Diseases in the Army, using a vaccine prepared in the chorioallantoic sac of chick embryos determined pre- and post-vaccination

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titres on 92 subjects after intervals of 2 weeks, 4 months and 1 year[8]. The highest titre was noted at 2 weeks for both types A and B. The incidence of influenza in non-vaccinated controls was approximately three and one-half and eight times, respectively, more frequent than in vaccinated personnel[9, 10].

Reaction subsequent to vaccination with influenza vaccine is not infrequent. In a study during the epidemic of 1943-44 of 1791 individuals innoculated, 40 went to the dispensary because of a reaction[11]. In 1947 a fatal reaction of allergic type occurred in a child three and one-half years of age immunized by influenza virus vaccine. Egg protein was considered as possible cause for the anaphylactic death. Others considered that the fatal reaction in the reported case was probably a result of the virus rather than egg protein.[13, 14]

The studies of influenza virus vaccine effectiveness have considered young adult groups, and there have been no comprehensive reports of such studies in children. Since the results in the adult groups had been good, and because an epidemic of influenza was predicted for the winter of 1946-47, our interest in a clinical study on children was stimulated.

Immunization was carried out, except in 3 instances in the months of October, November and December, 1946. A group of 100 children was immunized with influenza virus vaccine Types A and B;[15] a group of similar size served as controls and was not immunized with the vaccine. In the vaccinated group 42 per cent were between 19 months and 6 years of age, 50 per cent were between 6 and 10 years of age, and 8 per cent were between 10 and 16 years of age. In the control group, 55 per cent were between the ages of 19 months and 6 years, 31 per cent between 6 and 10 years, and 14 per cent between 10 and 14 years. Immunization consisted of two injections of the vaccine, 0.5 c.c. at each injection, and at intervals of 1 week. In 14 children, smaller doses were given rather than the adult doses; in these instances, the children were in the youngest age periods or had severe reactions with 0.5 c.c. at the first dose. Of these 14 only one developed influenza during the winter.

A disease diagnosed clinically as influenza occurred in the Champaign-Urbana area in December, 1946, and continued through the winter months of 1947. The highest incidence of respiratory infections was in February and March, 1947. During one period of several weeks, the public school attendance was reduced approximately 50 per cent in most all grades, because of high incidence of these respiratory infections. The diagnosis of influenza infection in the immunized group was in most instances made by a physician from the clinical findings. In certain cases, the infections were regarded as influenza from the parents' description of the disease; in such cases, other members of the family who were ill at about the same time were diagnosed as having influenza by a physician.

The information essential for this study was obtained from questionnaires sent to the parents of all immunized patients. A questionnaire was sent all patients several weeks subsequent to the last immunizing injection and pertained to reactions from the procedure; a second questionnaire was sent to all immunized patients in the early summer of 1947 and pertained to the occurrence of influenza the preceding winter.

Reactions subsequent to the first injection of influenza virus vaccine were frequent and Chart I indicates the relative frequency of the different systemic and local manifestations.

CHART I
REACTION TO FIRST INJECTION OF INFLUENZA VIRUS VACCINE

Temperature elevation	57
Local swelling	16
Nausea	9
Generalized aches and pains	7
General malaise	6
Headache	5
Vomiting	5
Fatigue	4
Anorexia	3
Sneezing	3
Convulsions	2
Restlessness	1

It will be noted that fever was the most common manifestation, occuring in over 50 per cent of those immunized. Hyperpyrexia was most frequent in the children less than 6 years of age, and 80 per cent of all fevers which exceeded 103° were in this youngest age group. The two children who had generalized convulsions with the hyperpyrexia were from the group less than 6 years of age. Only 12 patients had reactions

following the second injection and in all instances these were mild. Fourteen of the immunized children were known to be allergic and 5 of these had mild to moderately severe reactions.

In Chart II the incidence of influenza in immunized and control groups is compared.

CHART II
INCIDENCE OF INFLUENZA IN THE IMMUNIZED AND CONTROL GROUPS

	IMMUNIZED			CONTROL		
		Incidence			Incidence	
Age Group	Total	Influenza		Total	Influenza	
		Number	%		Number	%
Under 6 years age	42	6	14.3	55	21	38.2
6 to 10 years age	50	19	38.0	31	10	32.2
10 to 15 years age	8	3	37.5	14	5	35.6
Total	100	28	28.0	100	36	36.0

In this series the incidence of influenza in the immunized and control groups was not unlike except for the youngest age group, in which incidence of immunized was much less frequent in the immunized children. Conclusions from this interesting observation are not to be made in such a small series where other than immunological factors are also concerned. It is likely that the children in the youngest groups may have had less exposure to respiratory infection since many were not in school; this could not account for disparity of incidence in the immunized and control groups, however. Generally, the effectiveness of immunization was not impressive in this limited series.

COMMENT

No conclusions have been drawn from our observations as to the effectiveness of influenza virus vaccine A and B in the immunization of children of pediatric age. We were impressed by the frequency of reactions from the injections and the incidence of rather severe reactions in the younger aged children. Perhaps a dosage of vaccine dependent on body weight, as with typhoid vaccine, would reduce the number and severity of reactions. Further studies of larger series of children are necessary to accurately evaluate the effectiveness of the vaccine and to determine proper immunizing doses.

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RHINOPLASTY COMBINED WITH RECONSTRUCTION OF RECEDED CHIN

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The increased popularity of nasal plastic surgery has created a desire to improve other facial features, namely the forehead, chin and maxilla, which may be out of proportion to the newly reconstructed nose. Frequently, failure to consider these component features of the profile will mar an otherwise perfect rhinoplasty and

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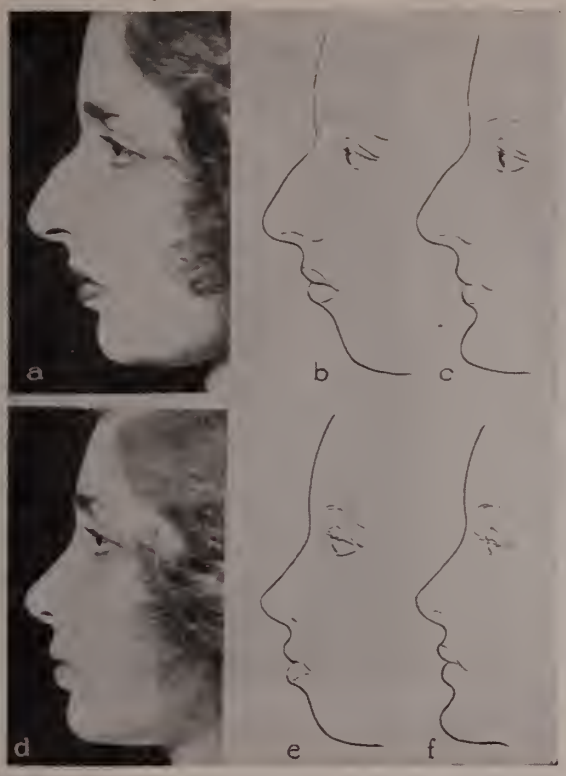


Fig. 1. (a) and (d). Same patient before and after rhinoplasty. Normal nasal and chin relationship illustrated.
(b). Sketch of preoperative nasal deformity but with a receding chin.
(e). Sketch of corrected nose with receding chin, illustrating how a smaller nose accentuates the recession of the chin thereby making it necessary to correct the chin at the same time that the rhinoplasty is performed.
(c) and (f). The same patient before and after a rhinoplasty but with a protruding chin in both sketches. This illustrates how the protruding chin appears less obtrusive with a smaller nose.

result in a nose which appears unnatural for the particular individual. The most commonly associated defect which distorts the profile line is a receding chin. Correction of the chin should be combined with the rhinoplasty as one operative procedure whenever feasible.

The methods of determining the amount of correction necessary to build a normal nasal-chin relationship are by the use of sketches, casts and measurements of the face. A method which I have employed to advantage has been to make a sketch of the profile on the back of a photograph while it is held up to a light or placed on a shadow box.[1] By shading out the amount of nasal bone and cartilage to be removed or added, as the case requires, and by sketching in the necessary amount of implant needed to correct



Fig. 2. (a). Patient with prominent nose and protruding chin.
(b). After nasal plastic surgery. Because of the smaller nose the chin appears less protruding.

the retrusion of the chin, one may form a fairly accurate picture of the end result.

Other methods of planning the correction are by the use of plaster or wax casts of the face. These may be helpful as the new chin can be built up on the cast with modeling clay and an exact impression of the pattern made in dental wax or duplicated in lead. The wax or lead may be sterilized and kept on the operating table to serve as a guide while shaping the chin implant. Another method of determining chin defects of the profile line is by photognathostatic diagrams.[2] By this method measurements are made on a profile photograph to analyze the deformity in relation to maxillary protractions or retractions and alveolar defects.

I have relied on the photographic sketches, (figures 3 and 4), plus direct measurements on the face preoperatively rather than on the use of casts. The preoperative sketch is placed on an x-ray shadow box in the operating room to act as a guide during surgery. To further insure accuracy in determining the size of the implant needed, the preoperative measurements, which have previously been taken directly on the patient's chin, are noted on the sketch so that reference to these figures are available during the operative procedure.

The chin and nose must be considered together and the effect of a change in one component of the profile should be in direct relation to the other. A receding chin may at first glance give the impression that a major correction of the nose is indicated, (figure 1b). After sketching the



Fig. 3. (a). Preoperative profile of prominent nose and receding chin.
(b). Sketch made preoperatively to determine the amount of nasal and chin correction necessary to attain a harmonious profile.
(c). Postoperative profile after nasal plastic and implantation of the hump removed from the nose into the chin.

new chin line on the photograph one may find that the correction of the nose may not necessarily be as drastic as was first believed to achieve the desired end result. The converse may be true in a slightly prognathic jaw, (figure 1c). The effect of shortening the nose in a case with a receding chin which has not been corrected, is to emphasize the disproportion in the profile line, (Figure 1e). The converse is again true in the prognathic jaw; with a shorter nose the jaw appears less protruding (Figures 1f and 2). In other instances a chin may appear receding because of a protruding superior alveolar process and maxillary spine or protruding upper teeth.

The methods employed in correcting a receding chin are varied and dependent on many factors. During the period of puberty and early adolescence the receded chin is almost always associated with malocclusion of the teeth and is an orthodontic problem. If the patient is seen early, even before the permanent teeth have erupted, proper orthodontic treatment will correct the majority of these cases. In the case of late adolescents or adults with a retruded chin combined with marked malocclusion, procedures involving various types of osteotomy of the horizontal or ascending rami of the mandible are necessary. By these procedures the jaw may be lengthened or advanced. Cases involving other functional disturbances as temporo-mandibular ankylosis require cartilage or cartilage and fascia implants inserted behind the heads of the condyles or section of the ascending ramus and creation of a false joint. Scars around the chin with secondary deformity of the jaw may require skin grafts both externally and intraorally with insertion of prosthetic appliances attached to the teeth. Other conditions may require a combination of these procedures supplemented by cartilage or bone implants anterior to the mandible.

However, these procedures are not within the scope of this presentation, which is confined to a discussion of receding chin without functional disturbance and which is associated with a nasal deformity. This includes receding chin without malocclusion of the teeth and patients in whom the malocclusion, if present, is not functionally disturbing. In these patients the correction is concerned primarily with the use of various substances employed to build out the chin contour and restore a normal profile line in harmony with the reconstructed nose.

An array of substances have been used and advocated as grafts for constructing a new chin.



Fig. 4. (a). Preoperative profile of prominent nose and receding chin.
(b). Sketch made preoperatively to determine the amount of nasal and chin correction necessary to attain a pleasing profile.
(c). Postoperative profile after rhinoplasty and implantation of the hump removed from the nose into the chin.

They may be divided into alloplastic and autoplastic materials. The alloplastic substances are those which morphologically and structurally are foreign to the body tissues. Those more commonly used in recent years have been ivory, celluloid, plexiglass, acrylics, and various metals, including vitallium and tantalum. The autoplastic substances are materials obtained from the patient's own body such as cartilage, bone and fat-dermal tissues. Preserved cadaver cartilage or isografts are commonly employed and would come under a separate classification of homogenous substance.

Each of the substances mentioned has its advantages and disadvantages. The advantages of alloplastic materials are in their availability without subjecting the patient to an operation for obtaining it, and in the ability to mold the material pre-operatively. The diadvantages are that they do not withstand trauma as well as autoplastic substances and may induce local irritation, important factors to consider in chin implants. They may, after the slightest trauma, set up a reaction in the tissues, become infected and are extruded.

Of the autoplastic materials, rib cartilage and iliac bone have proven very successful. Fat-dermal grafts have also been used with good results. The advantages of the autoplastic substances lie in their ability to become integrated into the tissues and are sturdy enough to withstand infection and trauma. The disadvantage claimed for autogenous cartilage is the possibility of curling or warping of the graft. This is obviated by using cartilage which has been "fixed" by boiling and cooling, (New and Erich[3]), thereby diminishing the elasticity of the cartilage and its tendency to warp.

The substance which I have employed to greatest advantage in cases of combined rhinoplasty and receded chin has been the use of the osteocartilaginous hump removed from the patient's nose during the rhinoplastic operation. In the majority of my cases sufficient hump material was available to properly correct the chin. Only in cases where the hump was too small was it necessary to use autogenous or homogenous grafts. In cases of a small hump, septal cartilage removed during the submucous resection was united to the hump with a catgut suture thereby giving the implant sufficient height to build out the chin. Aufricht[5], thirteen years ago, first described the use of the nasal hump for chin im-



Fig. 5. Preoperative and postoperative views of patient with nose and chin deformity. Correction of the nose by nasal plastic surgery and building out of chin contour by iliac bone graft.

plants. The use of the hump has proven highly successful in my series of cases. The shape and size usually conform very well to the contour of the chin so that there is almost no necessity for shaping or trimming the graft. Patients observed for over five years revealed practically no absorption of the graft.

In cases where insufficient hump material was available for the chin implant I have used preserved homogenous cartilage, also known as isografts. It has been an excellent material for chin implants in most of my cases but in a few instances there has been partial or complete absorption of the graft during periods ranging from one to six yaers.

Isografts were first described by Pierce and O'Conner[4] who, at the time of their original report, had observed cases for five years with no untoward results. It is acquired from persons who have died from accidental causes and reveal no pathology or infection. The cartilage is stripped of its perichondrium under sterile conditions and refrigerated in an aqueous solution of merthiolate 1:1000 to four parts of sterile saline. It may be stored indefinitely but should be cultured each time before it is used. In my series there have been a minimal number of cases which had either reactions or infection from the cartilage, and they have withstood trauma remarkably well.

TECHNIQUE

The details of the rhinoplastic portion of the combined nose and chin plastic will not be described. Essentially, the rhinoplasty is accomplished by the Joseph technique with some personal modifications.

The hump which is removed during the nasal plastic procedure is placed in a glass of sterile saline solution and set aside. After completion of the rhinoplasty and the insertion of the nasal packing, the surgeon's gloves are changed and a fresh set of instruments employed. The danger of cross contamination is minimal but the changeover is made as an added safeguard against infection.

The position for the implant is outlined on the chin with methylene blue. The center point of the chin is marked, followed by lines delineating the lateral and superior-inferior extent of the implant. They are then measured with the aid of a caliper. The projection needed to build out the contour of the chin is measured with a centimeter rule. These measurements are then applied to the hump which has been removed and in cases where sufficient projection is not attainable, a section of septal cartilage is sutured to the hump. The hump is cleansed of periosteum and mucosa and trimmed to the proper proportions.

The chin area is anesthetized with one percent procaine and adrenaline injected along the natural fold beneath the chin and lateral and superior to the region of the proposed pocket which is to receive the implant. A small incision is then made in the chin fold and with a sharp double edge Joseph knife, the bone of the mandible is engaged, a subcutaneous pocket dissected and the periosteum elevated, (Figure 6). The undermining of the skin should not be superficial or too extensive since this may lead to displacement of the graft, as no internal fixation sutures are applied. All bleeding vessels must be controlled since hematoma formation may impair the viability of the graft. The graft is then inserted with slight pressure and fitted snugly. Three black silk sutures are inserted to close the incision and external pressure applied with a bandage.

In patients in whom the preoperative measurements and sketches reveal that an insufficient amount of material is available in the nasal hump, plans are made in advance for the use of an isograft or autogenous rib cartilage. Since most patients, when given the choice, are unwilling to undergo an operation on the chest for obtaining rib cartilage, the majority of my cases were corrected with isografts.



Fig. 6. (a). Prominent nose with receding chin.
(b). Sketch made preoperatively to determine amount of nasal and chin correction necessary to attain desired profile line.
(c). Postoperative view after correction by rhinoplasty and implant of hump in the chin.
(d) (e) (f) and (g). Technique used for implantation of hump, or for cartilage or bone graft anterior to the mandible for correction of receding chin.

In those patients with a pronounced manibular retrusion associated with moderate degrees of malocclusion, more than one thickness of rib cartilage may be required. In such instances fixed autogenous cartilage is employed and two sections of cartilage are united together. In the utilization of such large grafts some method of internal fixation is necessary; the simplest procedure is the use of catgut sutures through the periosteum and over the implant. In these cases a large incision is made in the natural chin fold extending to the submaxillary regions bilaterally and the skin reflected up over the chin so that proper placement and fixation of the graft is accomplished. One should be careful not to cut past the sublabial sulcus and enter the oral cavity since contamination would almost be certain.

In the case of a protruding superior alveolar process and maxillary spine or protruding teeth the treatment involves extraction of the protruding teeth and resection of the projecting superior maxilla. After healing an artificial denture is worn.

In patients with extreme retrusion and marked malocclusion a proper cosmetic correction will not be attained by a chin implant alone, but must be supplemented by further procedures. These are the insertion of a prosthetic appliance, which is attached to the lower teeth, into a previously prepared skin pocket between the lower lip and alveolar process. In other instances osteotomy and advancement of the mandible may be indicated.

From a psychological standpoint we are prone to consider many of the deformities under discussion as trivial, yet the fact remains that in the patient's estimation the defect or defects are of extreme importance. It is gratifying to see the improvement in personality and mental outlook of many of these patients post-operatively. Many of us who are mentally capable of rising above some defects may still be sensitive about them and suffer inwardly.

CONCLUSIONS

In planning a rhinoplastic procedure, the other features which may distort the appearance of the individual must be taken into consideration. This is especially true of the relation of the nose to the chin. Simultaneous correction of both is necessary to produce a natural and harmonious profile.

The implantation of the hump obtained during the rhinoplasty is a highly satisfactory method of establishing a normal nasal-chin relationship in most patients with a receding chin. If insufficient hump material is available, perserved cartilage (isograft), autogenous rib cartilage, iliac bone or a fat-dermal graft may be employed. Alloplastic materials such as ivory, plastics or metals are not recommended since they are poorly resistant to trauma and may induce local irritation.

These deformities are not considered lightly by the patient and proper correction of them may affect remarkable results in personality changes and mental outlook.

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TUBERCULOSIS IN THE MENTALLY ILL AND DEFECTIVE

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PEORIA AND LINCOLN

A Preliminary Report

Because the prevalence of tuberculosis in the mentally ill and defective is a long established and well authenticated fact, the mental institutions of the State of Illinois have always paid particular attention to the combat of this disease. As early as the year 1904, the late Dr. George Zeller, that sturdy pioneer in the field of psychiatry, whom many of us here assembled so well remember and esteem, established his "tent colony" for the special care of the tuberculous psychotic at the Peoria State Hospital[1]. The erection of the "colony" and the treatment practiced in it, segregation, fresh air, rest, and good food, followed the up-to-date ideas of the day in phthisiotherapy. Following this example, other institutions have also assigned their tuberculous patients to special units. Subsequently, when the importance of the x-ray in our diagnostic procedures was widely recognized and accepted, most of the State institutions were equipped with an x-ray laboratory, serving with their original equipment a useful purpose until recent date. Chest radiograms, however, were used only sparingly. No wonder that in most instances they only confirmed the clinical diagnosis instead of being instrumental in the discovery of early tuberculosis. Such discovery, as is well known, requires the systematic x-ray survey of apparently well individuals in whom the disease is not even suspected.

It was in recognition of this fact and in keeping with the fine tradition of the Department of Public Welfare in the fight against tuberculosis that the first tuberculosis survey in the Illinois mental institutions was conducted by Pollak, Hummel, and Turow[2] from October 1, 1937 to December 22, 1939 at the Peoria State Hospital, which at that time was under the management of Dr. Walter H. Baer. Dr. Baer's co-operation in the survey and sustained and continued interest in the fight against tuberculosis has contributed much to tuberculosis control in our mental institutions. This survey corroborated the findings or similar studies, reported upon at that time from a few mental institutions in this country and in Canada[3,4,5,6,7,8], measured quantitatively the magnitude of the tuberculosis problem in the State mental institutions, pointed up the shortcomings of the methods used in the combat of this disease, and made appropriate recommendations for the introduction of adequate control measures.

In 1940, the late A. L. Bowen, Director of the Department of Public Welfare, appointed a Medical Advisory Committee on Tuberculosis, consisting of Drs. Baer, Murray, Sommer, Sweany, Head, Bettag, Kegerreis, and Pollak. Under the guidance of this Committee, which still retains its original membership with the exception of

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Dr. Sommer, though new members were added to it, an up-to-date tuberculosis control program covering all State Mental Institutions was evolved. The successors of Mr. Bowen, Mr. Brandon and the present incumbent, General Poust, have made this program effective. At present under the direction of Dr. Ernest Teller, Supervisor of Tuberculosis Service, control work is conducted in all institutions. Newly admitted patients and new employees are routinely x-rayed, the tuberculous properly segregated and treated, and all the patients and employees re-rayed, if at all possible, at least once annually. In the meantime also great progress has been made in the improvement of various tuberculosis units. While because of the prevailing shortages in personnel and material, much remains to be done, the State Hospitals of Illinois may justly be proud of the signal advancements they have made in the control of tuberculosis.

Because we believe that you, the members of this organization are very much interested in this important program conducted in your institutions and because you can do much to make this program most effective, we would like to discuss with you some of the findings of a study we are conducting at present at the Lincoln State School and Colony and the Peoria State Hospital. In both institutions we have under review the cases admitted to the Tuberculosis Units because of tuberculosis, or for observation, since this program there was instituted. While our study is far from being completed, and we are not prepared to present the final statistical data, a few of our findings have been well crystalized so that we may submit them for your consideration.

THE SITUATION AT THE LINCOLN STATE SCHOOL AND COLONY

We have studied the records of the patients who were cared for on Drake Hospital, so named in honor of the memory of Dr. C. St. Clair Drake, former Superintendent of the Jacksonville State Hospital, the tuberculosis unit, from January1, 1943, to March 1, 1947. We have taken this time interval because unfortunately the x-ray films of patients who died or were discharged earlier were destroyed because of lack of filing space. Even so the radiograms of nine patients, who have died during the period of this study and are included in it, could not be found.

Originally the radiograms were read and the diagnosis was made by various men, members of the resident staff, radiologists, and tuberculosis control officers. We have made our own diagnosis in each case in the light of the information gained from the serial films and the clinical course. In the cases which died we have compared our findings with the cause of death as given on the death certificate. In a few instances, the radiograms taken shortly before death did not warrant the diagnosis of pulmonary tuberculosis, in others tuberculosis was not given as the cause of death, when far advanced disease was shown. Corrections were made according to our own diagnosis. In the nine cases where radiograms were not available, tuberculosis obviously was accepted as the cause of death.

From January 1, 1943 to March 1, 1947, 221 patients (126 males and 95 females) were cared for on the tuberculosis unit. Of these patients 104 (56 males and 48 females) were transferred back to other divisions and one minimal active case to a public sanatorium; 69 (43 males and 26 females) have died, and 47 (26 males and 21 females) were still on the tuberculosis unit on March 1, 1947.

According to our interpretations, 56 (34 males and 22 females) in the group transferred back to other divisions had no tuberculosis, as was also the case with 16 (9 males and 7 females) in the group which died. Of the 47 patients on the Tuberculosis Unit on March 1, 1947, 2 had no tuberculosis, 15 were in the minimal stage, 16 were moderately and 10 were far advanced and 4 had pleurisy with effusion, on admission. While on the Unit, definite improvement was observed in the condition of 24 of these patients, 6 have shown the well known course of improvement interspersed with remissions, the condition of 12 was progressive and in 3 it was unchanged.

During the period covered there were 82 males and 65 females, or 147 patients in the institution who had active tuberculosis. Of this group 53 (34 males and 19 females) died of the disease, giving a mortality ratio of 36%; the disease of 48 or 32.6% (22 males and 26 females), had become arrested and 45 or 30.6% were still under treatment.

Analyzing the condition on admission to the Tuberculosis Unit of the 44 patients who have died and whose radiograms were available, we

found that one each had minimal and moderately advanced pulmonary tuberculosis, pyopneumothorax, peritonitis, and spondylitis, 2 had pleurisy with effusion, 3 had miliary and 34 far advanced tuberculosis. In 28 of the 36 pulmonary cases, cavitation could be seen on the radiogram either at the time of admission or later. In the remainder no such diagnosis could be made.

The time interval between diagnosis and death in the 42 chest cases for which radiograms were available was as follows: — in 6 it was less than three months, in 2 it was from three to six months, in 12 from 6 months to one year, in 18 between one and two years, and in 4 from three to five years.

The patients on the tuberculosis unit receive standard sanatorium care. Rest periods are observed as far as possible with the type of patients we have to deal with, artificial pneumothorax and operations on the phrenic nerve are resorted to whenever indicated and permission obtained. No thoracoplasty has been performed because of lack of personnel for post-operative care.

THE TUBERCULIN SURVEY

For the test we have used 0.10 mgm. O. T. (Saranac Lake) by the intradermal method.

Thus far we have tabulated the results in 1,057 female patients, as follows:

Age Group	No. Tested	Positive	% Positive
0-9	46	5	10.8
10-19	282	72	25.5
20-29	281	113	40.1
30-39	208	134	64.4
40-49	143	96	67.1
50-59	51	41	80.4
60 and over	15	12	80.0
Unknown	31	24	77.4
	1,057	497	47.0

THE STUDY AT THE PEORIA STATE HOSPITAL

Here too we are reviewing the cases as we do at Lincoln. But our primary interest is directed towards the effects of the various forms of shock and fever therapy on the development of tuberculosis on those patients who show evidence of primary or so-called childhood tuberculosis. Thus far we have reviewed the chest radiograms of a considerable number of patients who have been subjected to shock therapy. We found that almost all of them had a chest X-ray before their treatment was started and that these show no signs of active pulmonary tuberculosis, in accordance with the policy established in 1939. The tri-monthly follow-up radio-grams, however, were often not taken because of the exigencies of the war and its aftermath. Thus far, we have found only one case in which active pulmonary tuberculosis has developed about three years after the cessation of shock therapy. Recently we have given our consent that, a patient whose advanced tuberculosis has become arrested by extensive calcification prior to his admission to the hospital, be subjected to malaria therapy, because of his psychosis being grave and manifestly hopeless. We have observed considerable improvement in his mental state, but as yet have seen no signs of reactivation of his pulmonary tuberculosis.

Manifestly we are in no position as yet to give definite conclusions. Nevertheless we have gained certain impressions which we shall discuss later.

DISCUSSION

X-ray Diagnosis: — While it is generally agreed that chest radiograms are essential in the diagnosis of tuberculosis, it should not be forgotten, as an editorial of the Journal of the American Medical Association[9] pointed out recently, that roentgenology is not an exact science as yet, so that radiological diagnosis too is subject to the "personal equation" of the examiner, as is the case with many of our diagnostic methods. Many of you, no doubt, are familiar with the extremely illuminating report of the Board of Roentgenology of the Veterans Administration, published in the same issue of the Journal. To many of you, this report, divulging great divergencies in interpretation among the experts, and even by the same expert when re-reading the same film on different occasions, might have come as a surprise. To those of us, however, who follow up cases with serial x-rays and thus come face to face with our own omissions and commissions, it has only proved that even the best among us are subject to human limitations. This report detracts nothing from the value of the chest radiogram in diagnosis. It only points out its definite limitations. It has been long known that a single radiogram is not always sufficient for the diagnosis of pulmonary tuberculosis, or of any other chest condition for that matter. The report has only added new proof to this old truism. Chest radiograms constitute only one link, a most important one we may add, in the chain of our diagnostic procedures. In addition to them, however, history, physical examination,

the tuberculin test and last, but not least, the laboratory examinations should be utilized before arriving at a definite diagnosis. Even then serial x-ray films taken subsequently may lead at times to a change in our working diagnosis.

The x-ray examination of the mentally ill and defective as it was also shown by Danzer[11] presents at times considerable technical difficulties. Often it is extremely difficult to position these patients properly in the front of the film casette, so that the resulting radiogram can be interpreted only with reservations. The spinal and chest deformities, so common among the defectives, may easily present a bizarre picture puzzle which can be solved only by subsequent examinations. In our review we have noticed a considerable inclination to interpret many diverse shadows as caused by tuberculosis, when this was hardly the case as proved by subsequent serial films.

The differential diagnosis between tuberculosis and other lung involvements may be difficult at times, as the following case report illustrates: F. M., a 64 year old former coal miner, was admitted to the Peoria State Hospital on April 25th, 1940, because of chronic alcoholism, tertiary syphilis, and cardiac insufficiency. His routine chest radiogram was interpreted as showing signs of arrested pulmonary tuberculosis. He left the institution on April 22nd, 1944. On November of 1945, he was readmitted. The chest radiogram was unchanged. Subsequently he repeatedly expectorated considerable amount of blood and he died a few days after such an episode on March 3, 1946. In view of the x-ray findings and the hemoptysis it was believed that he died of pulmonary tuberculosis.

At this time, the chest radiogram was reviewed by one of us who saw on the films signs of extensive anthracosis, but none of tuberculosis. The post-mortem examination revealed a primary cancer of the pancreas with metastases to the liver, marked anthracosis of the lungs and bilateral adhesive pleurisy. The cause of the hemorrhage could not be ascertained, but it was believed that it must have originated in the stomach because its mucosa was markedly hyperemic.

The typical signs of healed primary tuberculosis have often led to the segregation of the patient on the tuberculosis unit. Such practice must be considered dangerous, because it exposes the patient to the hazards of reinfection, leading to a serious disease. Active pulmonary tuberculosis among children is relatively rare. When it occurs, however, it may take a florid course, as illustrated by the following case: C. P. was admitted to the Lincoln State School because of mongolism on September 8, 1933, at the age of two years. In December of 1946, he developed cough, spiked fever and started to lose weight. His radiogram taken on January 16, 1947, showed far advanced pulmonary tuberculosis with cavitation in the left upper lobe. He was immediately admitted to the tuberculosis unit where he died on January 29th, 1947. Post-mortem examination confirmed the diagnosis, and the histological examination of Dr. Josephy corroborated the pathological findings. Miliary tuberculosis is relatively more frequent in children than in adults, as shown by the three patients in our group who died of this form of the disease.

While in the vast majority of instances tuberculosis attacks the lungs, we should not forget the existence of extra-pulmonary involvements. At times, it may be extremely difficult to detect such instances, as may be seen from the following case report: R. V. 28 year old male was admitted to the Lincoln State School on November 8th, 1936, because of mental difficiency. In October of 1945 he became jaundiced. In April of 1946 the liver was found to be enlarged. It was believed that the patient was suffering from obstructive jaundice and an exploratory laparotomy was performed on July 13th of 1946. The gall bladder however, was found to be normal. Prior to the operation, on July 10, 1946, a chest radiogram showed a wide mediastinum, but no other pathological changes. The mediastinal change was believed to be due to a substernal goiter. The patient died on February 3, 1947.

The post-mortem examination disclosed a large mass the size of a small apple extending from the ribs on each side at about the center of the thoracic cage, markedly enlarged mediastinal and mesenteric glands, dense nodules in the liver, millet seed sized nodules in the spleen and kidneys, and a tumor like mass the size of a quarter in the calvarius. It was believed that we were dealing with a sarcoma of the ribs giving rise to the metastases found in the other organs. We were greatly surprised to learn from the histological report of Dr. Josephy that all the changes

in the viscera were due to tuberculosis, very likely originating in the glands of the mesentery, and those in the brain to hemorrhagic softenings contained calcified nerve cells. The latter lesion might have been due to a trauma suffered during birth.

Laboratory Examinations: We would like to underscore the importance laboratory examinations play in diagnosis and enter our plea that in our hospitals greater attention be paid to the clinical laboratory, particularly as far as technical personnel is concerned. As Dr. W. G. Murray, Superintendent of the Dixon State Hospital emphasized in his paper presented before the 1945 Annual Meeting of the American Association on Mental Deficiency[12] "Illinois like many other states has been so busy trying to give them (the mentally ill and defective) care, treatment, and education, that scientific investigation, which might reduce the influx, has been neglected. The influence of this Association should be brought to bear in an effort to establish modern laboratories in all institutions for the mentally deficient." We submit that the clinical laboratory is just as essential to accurate diagnosis, as it is to scientific investigation. Moreover, as far as tuberculosis is concerned, it is only by laboratory examinations that we can determine whether or not the disease of a given patient is or is not contagious. The knowledge of this fact is an important guide in the treatment of the patient, and also determines whether he is or is not a menace to his environment should he be ready to return home.

We cannot help but feel that, while higher medical standards leading to more effective treatment would require a greater financial out-lay in the beginning, they would also result in substantial economies in the long run, because more effective treatment would shorten the patients' stay in our institutions. By such shortened stay in turn the existing institutional facilities could be better utilized.

The Role of the Resident Staff: Even if the present program of taking chest radiograms of every patient on admission, and at least once annually of the whole patient population be carried out to the letter, it must be borne in mind that these time intervals were set arbitrarily, while the onset and the progress of the disease does not respect such limitations. Tuberculosis, as a rule takes a chronic course, but at times it developes with an acute onset, simulating pneumonia, or with a fairly rapid spread masking under various conditions. Under these circumstances we cannot expect that even under a strictly enforced survey program the disease will always be discovered in its early stages. Calamities in late diagnosis can be prevented only if the resident staff accepts its share of the responsibility in the combat of this important infectious disease, which is endemic in our mental institutions. By insisting that every patient transferred to the infirmary should have a chest x-ray as soon as his condition permits, that every case of pneumonia should have a follow-up film before he is released, a sufficient number of patients will be discovered who develop their tuberculosis between the regularly scheduled surveys, and it will not be permitted that the condition of these cases progress unchecked, because it was not recognized in time. General hospitals in which such a program has become the routine have amply and adequately proved that it is well worth the effort spent on it. Such a program protects not only the patient, but also the reputation of the physician who takes care of him. We would like also to insist that patients ready for discharge should have a chest radiogram prior to their leave, or at least four to six weeks previously, lest they return home with undetected tuberculosis, and endanger the health of their family and community.

Whenever patients are discovered under the above conditions, the whole unit where these patients were housed should be subjected to an immediate survey in search for other cases among their contacts. Recently for instance, at the Peoria State Hospital such a lead case led to the discovery of two additional cases, on two different occasions.

Treatment and Results: Modern sanatorium regimen and collapse therapy may just as well be applied to the tuberculous psychotic and mentally defective, as it is to mentally normal individuals. In unruly patients the barbituriates may have to be resorted to before pneumothorax refills.

The results of treatment are comparable with those achieved in tuberculosis sanatoria. While the mortality ratio observed in our small series is considerably higher than the 19% reported by Drolet[13] for the five year period 1937-1941, for the 100 large sanatoria he has studied, we



Figure 1. A. G. admitted to the Tuberculosis Unit 1/24/39. Far advanced disease with bilateral involvement. Note cavity in left upper lobe.



Figure 2. Same case on 7/23/40. Note marked clearing and fibrosis left upper lobe.

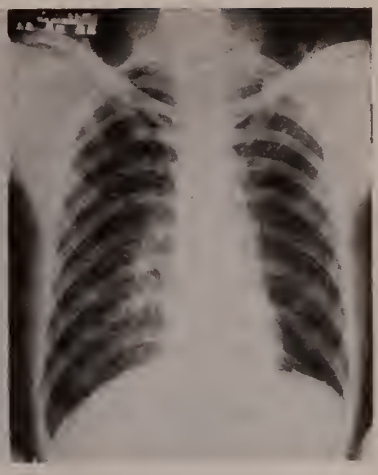


Figure 3. Same case check-up film. 12/20/45.

believe that it is of the utmost importance that in a significant number of cases under review an arrestment has been achieved. The radiograms of such a case are shown in Fig. 1, 2, and 3. No doubt, the percentage of arrestment can and will be improved upon the more rigidly the control measures will be adhered to.

Post-Mortem Examinations: As shown by the two case reports we cited, post-mortem examinations may readily prove our errors in diagnosis. At times, even these will not go far enough and only the histological examinations will render the final verdict. Serious efforts should be made, therefore, to secure a necropsy permit in every instance of death. There will be hardly a post-mortem examination performed from which we will not learn something for the benefit of our own and of our patients.

It is generally conceded that the percentage of necropsies is the best single yardstick by which the medical standards of a given institution can be measured. Experience has also shown that in institutions in which post-mortem examinations are routinely performed the medical service given to the patients is on a higher level than in those in which the staff is not interested in this most reliable check on its work. Thus post-mortem examinations will not only widen our own knowledge, but will also lead to better care of our patients, because they prevent burying our mistakes without notice.

A pathologist on any hospital staff furnishes valuable aid in diagnosis and treatment, and his presence is the greatest incentive to the practice of scientific medicine as any good hospital will attest. The services of a competent pathologist should, therefore, be available to every institution, at least on a part-time basis.

The Death Certificate: The statement on the death certificate should be as scientifically accurate as we can make it. We noted with regret the tendency to attribute tuberculosis as the cause of death, just because a patient was cared for on the tuberculosis unit. It should be remembered that patients are often transferred to this unit for observation, which in the end excludes tuberculosis. It should be borne in mind too that minimal and moderately advanced tuberculosis will not cause death without progression to the far advanced stage; and last but not least that the disease once arrested will not lead to death without reactivation, unless extensive fibrosis is present.

Tremendous efforts and considerable amount of money are spent constantly on the study of mortality statistics, because they serve as an important yardstick in measuring the effectiveness of our control efforts and the need of intensified attack. This yardstick, however, can only be as accurate as the individual death certificates on which it is based. Thus inaccurate certificates may lead to unnecessary public expense on one hand when they show exaggerated rates and to the neglect of public health needs on the other, when they do not disclose the true mortality.

Shock and Fever Therapy in Tuberculosis: It is well known that shock and fever therapy

are apt to lead to the progression of active pulmonary tuberculosis. It has become the practice, therefore, to deprive tuberculosis patients of this valuable treatment. We believe that such a dogmatic stand is not justified, and that in such instances too as in every field or medicine individualization should replace generalizations.

We submit that pulmonary tuberculosis is amenable to treatment even in the mentally ill. Hence, we believe that once the disease has been brought under control, consideration be given to shock and fever therapy.

The High Incidence of Tuberculosis: Many theories have been offered to explain the high incidence of tuberculosis in the mentally ill and defective, particularly in the schizophrenics and low grade defectives. Time does not permit us to deal with these in detail. Alstrom of Sweden[14] published an extensive study in 1938 reviewing the voluminous literature on the subject. While he does not accept any of the theories advanced, he was forced to admit that there must be some clinical connection between tuberculosis and schizophrenia and that in some way or other schizophrenia prepares the way to tuberculosis.

While the surveys conducted show without exception a high incidence rate of tuberculosis in mental institutions, there is a wide latitude between the incidence rates reported not only by the various authors, but also in the different institutions surveyed by the same author, as was pointed out by one of us in the Peoria State Hospital Survey[2]. Some of this divergence is, no doubt, due to the "personal equation" of the various authors, others to the interpretation of the vague term of "clinically significant tuberculosis" which readily permits personal bias.

It should also be remembered that the patient population of our mental hospitals, with the exception of the institutions for the feebleminded, is considerably older than that of the general population, and that the mortality rate from tuberculosis increases with advancing age. Hence, for the sake of accuracy comparisons with other groups should be made on the basis of age specific rates of the State, as first advocated by Malzberg[15] or on the basis of standardized specific rates as given by the U. S. Public Health Service.[16]

It should not be forgotten either that the reports hitherto published orginated in public institutions, the patient population of which is recruited from our lower social and income strata, among whom, as shown by Whitney,[17] tuberculosis is far more prevalent than it is in the general population. It is, therefore, not entirely justified to compare the incidence in mental institutions with that observed in the general population. Surveys conducted on a representative number of patients cared for in private institutions, may readily tell a different story and could bring us closer to a true incidence rate of the psychotic and defective.

It is our belief that a combination of many factors contributes a complex share to the high rate observed. Could the causal connection be found in explaining the differences observed between the various institutions, we could come closer to the understanding of some of the still obscure problems in the epidemiology of tuberculosis. Patients who are under constant medical supervision in our mental institutions would lend themselves admirably to such studies. Here then is a fertile field for the collaboration of the psychiatrist and phthisiologist. Such collaboration could readily benefit both specialists and their patients.

The Tuberculin Survey: The survey at the Lincoln State School and Colony shows a relatively high percentage of positive reactors. It is, however, comparable to the results found by Bronfenbrener[1] who in 1932 found that 40.5 percent of the 2,334 patients of Letchworth, Village, Pennsylvania, gave a positive reaction with the Von Pirquet test. The intradermal test is admittedly more sensitive than the Von Pirquet test showing a higher number of positive reactors.

As it was expected, the percentage of positive reactors increases with advancing age. How much this increase is due to the residence in the institution we are unable to tell, because the number of patients thus far tested in the Receiving Wards is too small, and so does not permit a fair comparison with the older residents.

It was the object of this survey to determine the negative reactors, so that by repeating the test at annual intervals we shall be able to measure the increment of new infections in our patient population and thereby also the effectiveness of our control measures. The number of negative reactors is high enough to serve this purpose satisfactorily.

Our Obligation to Our Communities

The epidemiological map of Illinois depicting the mortality rates from tuberculosis shows the highest rates in every community where a state hospital is located. As a matter of fact, according to the latest study of the U.S. Public Health Service covering the years of 1939-1941[19] the highest mortality rate per 100,000 in the State, 215.7, was recorded in Kankakee County where the Manteno and the Kankakee State Hospitals are located.

The other institutions are responsible for the following rates:

Lincoln State School and Colony	
Logan County	138.5
Anna State Hospital	
Union County	134.7
East Moline State Hospital	
Rock Island County	132.2
Elgin State Hospital	
Kane County	103.5
Dixon State Hospital	
Lee County	101.7
Jacksonville State Hospital	
Morgan County	90.7
Peoria State Hospital	
Peoria County	71.8
Alton State Hospital	
Madison County	39.2

In contrast the mortality rates for the State and its various areas were as follows:

The State	46.4
Urban Places	52.6
Balance of State	35.3

These rates speak for themselves and demonstrate clearly how much our state hospitals contribute to the high mortality from tuberculosis. They also prove that these hospitals represent veritable endemic areas within the State. It is of slight consolation that the conditions in Illinois are not worse than in any other state. The responsibility as far as our own institutions are concerned is our own. In Illinois we are far ahead of most of the states, because the Department of Public Welfare has provided the means for the effective control of the disease. Will we utilize these as effectively as we should?

The eradication of tuberculosis is the unfinished business of the present medical generation, as that of typhoid was of the preceding one. It can be accomplished, however, only through team work between the general practitioner and the physicians charged specifically with its control in our communities in general, as well as in our mental institutions in particular. As far as our mental institutions are concerned the responsibility and its rewards alike are greater because here the patients are under constant medical supervision and we cannot excuse ourselves that the patients have waited too long until their disease has become far advanced before they have presented themselves to us.

Our armed forces have well demonstrated how effectively tuberculosis can be brought under control once adequate machinery has been set in motion. According to Long[20] the tuberculosis mortality for the entire Army group including its discharged members by the end of the year 1945 was 12 per 100,000. At the same time the annual rate for the whole country was 52. The Armed Forces have set the target we, tuberculosis physicians and resident staffs as a team, have to aim at. The statistics of the next Census year will show how close we will come to our goal.

CONCLUSIONS

1. Since 1904 when the late Dr. George Zeller established the "Tent Colony", the first public tuberculosis sanatorium in the State at the Peoria State Hospital, the mental institutions of Illinois have always combatted tuberculosis according to the prevailing ideas of the day.

2. From January 1, 1943 to March 1, 1947, 221 patients were cared for on the Tuberculosis Unit of the Lincoln State School and Colony. Of these 74, as the review of their course and serial x-rays have shown, had no tuberculosis. Of the 147 tuberculosis patients 53, or 36.0 percent died, the condition of 48, or 32.6 percent has become arrested and 45, or 30.6 percent were still under treatment on March 1, 1947.

3. The intradermal tuberculin test performed on the patients of the Colony showed 47% positive reactors. The percentage of the reactors increased with advancing age.

4. Among the shock therapy cases of the Peoria State Hospital, as far as can be determined, only one case developed pulmonary tuberculosis about 3 years following cessation of treatment.

5. The chest radiogram, important as it is, constitutes only one link in the diagnostic procedures. History, tuberculin test, physical and laboratory examinations should, therefore, not be neglected.

6. Tuberculosis in mental institutions can be effectively controlled only through the close collaboration of the Resident Staff and the tuberculosis physician. It is recommended that beside the annual check-up x-ray examinations every patient admitted to the infirmary should have a chest radiogram as soon as his condition permits, pneumonia patients should have also a final x-ray before returned to their original wards, patients to be dischargel from the institution should have a chest radiogram within 4 to 6 weeks prior to their release.

7. Tuberculosis patients should not be dogmatically deprived of shock and fever therapy. As soon as the tuberculosis of the patient has been brought under control, the advisability of this therapy should again be seriously considered.

8. Because patients in mental hospitals are under constant medical supervision, they offer a splendid opportunity to phthisisologists and psychiatrists to study by joint efforts the unsolved epidemiological problems causing the high incidence of tuberculosis among the mentally ill and defective.

9. According to the latest statistics available the highest tuberculosis mortality in Illinois was recorded in Kankakee County where the Manteno and Kankakee State Hospitals are located. Excessively high death rates are shown in the Counties where the other mental institutions are situated. These conditions make it incumbent on the medical staffs of our mental hospitals to do their utmost in combatting the disease.

We wish to express our thanks and appreciation to Dr. William W. Fox, Superintendent of the Lincoln State School and Colony and to Dr. R. J. Graff, Superintendent of the Peoria State Hospital, for making this study possible through their cooperation.

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DISCUSSION

Dr. W. Baer: Dr. Pollak's excellent paper is most worthy of your careful consideration. Your cooperation in carrying out suggested procedures will prove to be an important factor in the ultimate success of the tuberculosis control program in our State institutions.

Today there is an increasing recognition of the mental factors in so-called physical disease as is evidenced by the development of psychosomatic medicine as one example. From the standpoint of the care mentally ill people receive and especially in their hospital care, there is today an increasing awareness of the need of not neglecting the physical disabilities of these patients. We are in a period of transition from the giving of custodial care, housing, food, etc. to the giving of adequate "medical" care. This transition will require initiating and completing in our mental hospitals all recognized and standard medical practices that prevail in our non-mental hospitals.

The early recognition and treatment of tuberculosis is a pertinent example. While the Illinois mental hospitals are in the forefront in this program of giving better medical care, none of us are satisfied with the rate of change. It takes months and years to get equipment, personnel, and then carry out the procedures. This time delay is something that we ought to be able to change. The delays brought on during the war period were unavoidable. Now our rate of progress should be much increased. The members of the staffs of our hospitals can help materially in reaching more nearly to the desirable goals. The invaluable help, the inspiration, the prodding and guidance from imminent medical consultants who have given unstintingly of their time and wisdom to help us should not be unrecognized. Dr. Pollak is an outstanding example. While Superintendent of the Peoria Municipal Tuberculosis Sanitarium he was responsible for starting the present program of tuberculosis control in our State

hospitals. This excellent paper today illustrates the type of medical service that the mentally ill in our hospitals are beginning to receive. As members of the Physician's Association of the Illinois Welfare Institutions, we can well dedicate ourselves anew to the unfinished task of transforming our institutions into well run hospitals that provide the type of medical care to which our patients are entitled.

COLONIC DIVERTICULA: A REVIEW OF TWO HUNDRED THIRTY-FOUR CASES

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CHICAGO

Diverticula of the colon were recognized almost a century ago, but during the past twenty-five years more attention has been given to this condition as a cause of abdominal symptoms. In spite of this increased interest a diagnostic clinical picture has not been developed. It is our hope that a more careful observation of a thousand or more cases will develop a clinical story of this condition and it was with that hope that this survey was undertaken. A perusal of the literature leads one to the conclusion that at present there is no general agreement as to when diverticulosis becomes diverticulitis.

Bargen[1] defines a case of diverticulosis as one in which evidence of diverticula is found by roentgenological examination or at necropsy and in which from all available data does not bear any relationship to the patient's complaints. Palmer[2] states that in diverticulitis clinical manifestations appear only when secondary inflammation develops. If these definitions are adhered to by a large number of clinicians a characteristic clinical story will be developed.

This review is a study of 234 cases of colonic diverticula seen at Mercy Hospital from 1930 to 1947. It includes 122 cases of diverticulosis and 112 cases of diverticulitis.

Most of the cases of colonic diverticula occurred from the ages of 50 to 70. Willard and Bockus[3] found the average age of 35.4 in 72 cases. Brown[4] reported the condition uncommon under 40 and rare under 30. Levitt and Goldstein[5] noted 43 out of 46 cases 50 to 70 years of age. Newton[6] reported its occurrence at 12 and 77 years. All of 24 cases reported by Eggers[7] were over 40 with 9 in the sixth decade. In 1917, W. J. Mayo[8] reported an average age of 53 in 42 cases. In our series of cases the youngest was 16 and the oldest 86. There was almost an equal number of cases in the fifth and sixth decade — 26 per cent and 26.5 per cent respectively (see Table I).

The sex distribution is revealed in Table No. II. The literature indicates that more colonic diverticula are found in the male than in the female, although many report an equal distribution. Ochsner and Brown[9], Conway and Hetzrat[10], Newton[6], Eggers[7], W. J. Mayo[8], and Martin and Adsit[11].) In our series there were more females with diverticulitis and diverticulosis. In the complete series there were 43.6 per cent males and 56.4 per cent females.

The symptomatology of colonic diverticula is decidedly variable. According to definition there is no pain referable to diverticulosis, however, it is conceivable that such a defect may cause spasm in the colon which may result in abdominal discomfort. In diverticulitis pain is present to a variable degree in most cases. The pain may be acute, subacute or chronic. The pain may be localized, general, constant or intermittent, whether or not there is a definite radiation. Lynch[12] believes that all people with diverticulosis have symptoms, but Abell[13] states that there are no symptoms referable to diverticulosis. Erdman[14] observed that the onset was characterized by pain in the abdomen most frequently in the lower left abdomen. Ochsner and Bargen[9] report

TABLE I
AGE DISTRIBUTION — (234 cases)

	Diverticulitis	Diverticulosis	Total	% of total
10-19	1	0	1	0.5 (0.43)
20-29	2	0	2	0.8 (0.85)
30-39	3	11	14	6.0 (5.98)
40-49	17	16	33	14.0 (14.10)
50-59	32	29	61	26.0 (26.07)
60-69	33	29	62	26.5 (26.49)
70-79	21	19	40	17.0 (17.09)
80-89	6	4	10	4.0 (4.27)
Unknown	7	4	11	5.0 (4.70)
	122	112		

TABLE II
SEX DISTRIBUTION — (234 cases)

	Diverticulitis	Diverticulosis	Total	%
Male	57	45	102	43.6
Female	65	67	132	56.4

From Mercy Hospital, Chicago, Illinois.

TABLE III
Location of Abdominal Pain — (234 cases)

Location	Diverticulitis	Diverticulosis	Total	%
Generalized	22 S-14 M-12 C-6	19 S-3 M-14 C-2	41	17.5
Left lower quadrant	31 S-9 M-16 C-6	4 M-3 C-1	35	14.9
Epigastric	14 M-14	14 S-2 M-12	28	12.0
Both lower quadrants	23 S-7 M-11 C-5	0	23	9.8
Right lower quadrant	13 S-7 M-5 C-1	3 M-3	16	6.8
Right Upper quadrant	1 S	2 M	3	1.3
Left Upper quadrant	1 M	1 M	2	0.85
Upper abdomen	2 S-1 M-1	0	2	0.85
No pain	15	69	84	35.9
	122	112		

89 per cent of the cases of diverticulitis had pain. Case[15] rules out any symptoms in diverticulosis referable to the diverticula. Rankin and Brown[16] describe an intermittent sharp pain, a slow boring constant pain, and conclude that there is no typical pain. In diverticulitis of the colon, Conway and Hetzrat[10] report abdominal discomfort and pain, not as a rule related to food, that occurred in the left lower abdomen. There was flatulence and a feeling of distention. Huston[6] found similar symptoms.

We have made an analysis of the type of pain and its location in diverticulitis and in diverculosis. We classified the pain as severe, mild, and cramplike. A summary of the findings is compiled in Table No. III. Of 112 cases of diverticulitis 15 had no pain, while 69 of 122 with diverticulosis had no pain. Twenty-two patients with diverticulitis and 19 with diverticulosis had generalized abdominal pain. In the whole series, 41 or 17.5 per cent complained of generalized pain which was the most common complaint. Most cases of diverticulitis (31) gave a history of pain in the left lower abdomen. Only 4 cases of diverticulosis complained of pain in that region. Very few (8.1 per cent) had pain in the right side.

A picture of the temperature and leukocyte count in 92 cases of diverticulitis excluding those with complications is shown in Tables No. IV and V. If a leukocyte count of 10,000 is considered the upper limit of a normal fluctuation 51 per cent of this group had a leukocytosis. A temperature under 100° F. was seen in 54.95 per cent. Twelve cases had a temperature above 100° F., and a like number had a leukocyte count above 15,000.

Anemia was not a frequent finding exclusive of those with gross bleeding. There is no uniformity of opinion on this subject in the literature. Levitt and Goldstein[5] report anemia in most of their cases of diverticulosis. Rankin and Brown[16] found anemia rare.

Bleeding as demonstrated by gross or occult blood in the stool is not common.

TABLE IV
TEMPERATURE IN 92 CASES OF DIVERTICULITIS
(Excluding complications)

Temperature	Cases	%
Below 98.8°	42	45.65
99-100°	38	41.30
Over 100°	12	13.04

TABLE V
LEUKOCYTE COUNT IN 92 CASES OF UNCOMPLICATED DIVERTICULITIS

Leukocytes	Cases	%
Below 8000	22	24
8000-10,000	23	25
10,000-15,000	35	38
Over 15,000 (Highest 25,700)	12	13

Gross hemorrhage does occur. Willard and Bockus[3] reported bleeding in 39 per cent of 72 cases with only 5 to 7 per cent due to diverticula and one gross hemorrhage. Conway and Hetzrat[10] state that hemorrhage is rare since the inflammation lies as a rule outside the mucous membrane as a peri-diverticulitis. Six of 24 cases reported by Eggers[7] had gross blood in the stool from time to time. We found gross blood in 18 cases and occult blood in 30 with diverticulitis. In the diverticulosis cases only 22 had blood in the stool.

Red meats and other sources of blood should be omitted from the diet when stools are being examined for occult blood.

Obstruction and perforation, with or without abscess formation are the most common complications of colonic diverticula. Fistulas are uncommon, and carcinoma occurs very rarely. It is apparently rather widely believed that carcinoma is a common complication. Rankin and Brown[16] found carcinoma very rarely. In 227 cases only 4 had carcinoma, and in 679 cases of carcinoma of the bowel only 4 cases of diverticulosis were found. W. J. Mayo[8] in 1917 reported carcinoma in 31 per cent of a series. Four cases of carcinoma were encountered in the presence of diverticulitis out of 201 reported by Martin and Adsit[11].

In this series of 234 cases there were 30 complications: 12 obstructions, 9 perforations, 4 carcinomas, and 7 others which included 4 abscesses, 1 fistula, and 2 massive hemorrhages. It is recognized that 5 of the 7 mentioned might be included by some under perforation. Eighteen complications occurred in females and 12 in males. There were only 4 deaths.

Roentgenological examination is essential for the diagnosis of diverticula and for the site of their occurrence. Table VI gives the site of the diverticula in this study. Fourteen of the cases were examined roentgenologically before entering the hospital and in 18 the report did not reveal the site or the patient was treated surgically first. By studying Tables III and VI many interesting relationships can be determined. Apparently there is no uniformity of opinion as to the fluroscopical diagnosis of diverticulitis although Case[15,17] outlined his opinion many years ago. Willard and Bockus[3] later called attention to an angulation in the colon at the site of the diverticulitis. It is reasonable to believe that a marked localized spasm in the region of the diverticula and not present elsewhere in the colon is sufficient evidence for a diagnosis of diverticulitis. That is one of the criteria followed in this series of cases.

TABLE VI
SITE OF DIVERTICULA

	Diverticulitis	Diverticulosis	Total	%
Sigmoid only	32	31	63	31.0
Descending and sigmoid	15	29	44	22.0
Entire colon	19	24	43	21.0
Descending only	13	11	24	12.0
Transverse, descending and sigmoid	2	1	3	1.5
Transverse and descending	0	2	2	1.0
Ascending and descending	0	2	2	1.0
Transverse only	0	2	2	1.0
Hepatic flexure	2	0	2	1.0
Ascending only	11	1	2	1.0
Splenic flexure	0	1	1	0.5
Unknown			14	7.0

The treatment of colonic diverticula may be medical or surgical. Surgical treatment is usually the choice when complications are present. Jones[18] states that wise medical care in symptomless diverticulosis may save a certain number from trouble in the future, and he treats diverticulitis with infiltration, conservatively. He also advises barium sulphate by mouth twice a week to keep the diverticula filled. Rankin and Brown[16] suggest rest in bed, residue free diet, ice bag to the abdomen and rectal irrigations with hot physiological salt solution. For later treatment they suggest a bland anticonstipation diet, and surgery is indicated in acute perforation abscess, fistulae, inflammatory obstruction

and malignancy. In our series most of the diverticula were treated conservatively and very few cases of diverticulosis received any treatment. In diverticulitis atropine and its derivatives, the sulphonomides, antibiotics, antispasmodics, mineral oil, and the barbital preparations were frequently given. Heat in various forms was found beneficial. A low residue diet was prescribed. The cases with complications were treated surgically.

In summary 234 cases of colonic diverticula consisting of 122 cases of diverticulosis and 112 cases of diverticulosis are analyzed.

The discussion of these cases is divided into: (1) Sex and age, (2) location and type of abdominal pain. (3) temperature and leukocytosis in diverticulitis, (4) bleeding in diverticulitis, (5) the complications, and (6) the roentgenological findings and the site of location.

A hope is expressed that more careful observation of the clinical picture of colonic diverticula will be made by many others in an effort to develop a more diagnostic clinical story.

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He never had such a tough time in his life. First he got Angina Pectoris, followed by Arteriosclerosis. Just as he recovered from these he got Pneumonia, followed by Pulmonary Phthisis and Tuberculosis. Somehow he got over nothing of Pyorrhea. All in all, he never knew how he pulled through it. It was the hardest spelling test he'd ever been in.

FURTHER CLINICAL EXPERIENCE WITH DOLOPHINE

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Dolophine* is a new synthetic analgesic obtained from Germany, and bearing the German serial number 10820. It is also manufactured in the United States under the name of Amidone. Chemically this drug is the hydrochloride salt of 4,4-diphenyl-6-dimethylamino-heptanone-3, and is a white, crystalline powder readily soluble in water and alcohol, but insoluble in ether. This drug is dispensed in one cubic centimeter ampoules containing 2.5 mg., 5 mg., or 7.5 mg. of dolophine in solution, and in 20 cubic centimeter rubber stoppered ampoules having 10 mg. of dolophine per cubic centimeter. The solution contains chlorobutanol (chloroform derivative) 0. 5 per cent. Dolophine also is dispensed in 2.5 mg. oral pulvules.

Scott and Chen[1], in February 1946, first reported on the pharmacology of dolophine. A further pharmacological study was made by Scott, Kohlstaedt and Chen[2]. In January 1947 the early clinical experience with dolophine in a total of 112 patients was reported[3]. The following survey is a supplement to the previous communication and includes an additional series of 270 patients.

The effect of this drug in dogs is somewhat similar to morphine in that it depresses respiration, causes vagal slowing of the heart and almost no depression of salivary secretion. Dolophine differs from morphine in that it produces less stimulation in cats, probably shows less tendency to the development of tolerance, and has little or no emetic action in dogs. Dolophine, like morphine, has a spasmogenic action on both the intestine and ureter of the dog. While this drug may have a local antispasmotic effect on these structures, this effect is overshadowed by a central parasympathetic action.

Preanesthetic Use. — Dolophine was administered as a preanesthetic agent to 73 patients of whom 50 were males and 23 were females.

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*This preparation was obtained through the courtesy of Eli Lilly and Company.

They ranged in age from 13 years to 81 years. Eleven patients received dolophine plus sodium pentobarbital, Gm 0.16 to 0.24. Thirteen patients were given dolophine after inadequate premedication with morphine or morphine and sodium pentobarbital. Sixteen patients received only 5 to 7.5 mg. of dolophine, and the remaining individuals received 10 mg. of dolophine. In thirteen instances dolophine was administered intravenously, while in the remainder the intramuscular or subcutaneous routes were employed.

The sedative effect of this preanesthetic medication was noted as fair to good for 51 patients (70 per cent), and unsatisfactory for 22 patients (30 per cent). No atropine-like effects were noted, and there were no instances of nausea and emesis attributable to this drug.

Dolophine administered alone for premedication before surgery was not adequate for most individuals because of lack of control of apprehension. It is very effective in producing sedation, however, when given after moderate doses of morphine sulfate or sodium pentobarbital or both. Dolophine produced satisfactory sedation in 8 out of 10 patients who had unsatisfactory results from morphine sulfate or sodium pentobarbital and morphine sulfate.

Dolophine was administered intravenously slowly in doses from 5 to 15 mg. in 13 patients. A transient sensation of "light-headedness" was noted 2 to 4 minutes after the injection and persisted for from 5 to 15 minutes. The analgesia from one injection in this small series was adequate for one and one-half to two hour regional blocks, or two and one-half hour spinal anesthesias for surgical procedures.

In the previous communication[3], no untoward effects were noted on blood pressure, pulse or respiration. In this series we are reporting four instances of respiratory depression following the administration of dolophine.

Case I. K. E., female, age 41 years, who was in good general condition, came to the operating room for removal of a mixed tumor of the parotid gland. At 6:45 a.m. she had received morphine sulfate, Gm. 0.010 hypodermically, and sodium pentobarbital, Gm. 0.24 intramuscularly. Ethylene-oxygen anesthesia (75-25 per cent) was begun at 8:05 a.m. Because of inadequate pre-medication, 7.5 mg. of dolophine was administered hypodermically at 8:15 a.m. Thirty-five minutes later the respiratory rate dropped rather suddenly from 14 to 6 and 8 per minute, and remained at this rate throughout the procedure. There were no other disturbing manifestations. The operation was completed at 9:05 a.m. and 100 per cent oxygen was given by mask. Upon return to her room, oropharyngeal insufflation of oxygen was administered. The respiratory rate remained depressed for about one and a half hours. The patient was listless and drowsy for the following 24 hours. The post-operative course was otherwise uneventful.

Case II. L. R., female, age 29 years, entered the hospital following a diagnosis of hyperthyroidism. She was prepared for thyroid surgery and her basal metabolic rate was reduced to plus 12. She was given morphine sulfate, Gm. 0.010 hypodermically, and sodium pentobarbital, Gm. 0.24 intramuscularly at 7:10 a.m. as premedication. On arrival in the operating room, the premedication was found to be inadequate. Ethylene-oxygen anesthesia was begun at 8:25 a.m., 5 mg. of dolophine was administered intramuscularly at 8:10 a.m. and again at 8:30 a.m. The respiratory rate which had been normal diminished to 12 per minute at 8:35 a.m., although respirations were full and deep. Anesthesia was maintained with ethylene-oxygen (50-50 per cent). In about twenty minutes the respiratory rate increased to 16 per minute, and one hour later at the completion of the operation the respiratory rate was 18 per minute. Recovery was uneventful.

Case III. S. S., male, age 63 years, in good general condition, was admitted to the hospital with a diagnosis of benign prostatic hypertrophy. In 1936 he had had a transurethral prostatectomy performed elsewhere under procaine spinal anesthesia, which was uneventful. At 8:00 a.m. this patient was given 10 mg. of dolophine intramuscularly. He arrived in the operating room at 8:30 a.m., at which time respirations were noted to be 6 per minute, and the patient appeared drowsy. A suprapubic prostatectomy was performed under low procaine spinal anesthesia. Mask oxygen was administered throughout the procedure, and 2 cubic centimeters of coramine was administered intravenously with no apparent effect. The operative procedure lasted from 10:20 to 10:45 a.m. Respirations remained at 6 per minute until 1:00 p.m., at which time the respiratory rate began to increase. At 5:00 p.m. it had reached 14 per minute. At 9:00 p.m. the respiratory rate was 18 per minute.

At 9:30 that evening the patient was given 10 mg. dolophine intramuscularly and seconal, Gm. 0.09 orally, and no further respiratory depression was noted. The patient was mentally confused during that day and evening, and at 10:30 p.m. he arose and went to the bathroom. He has no recollection of the events of that day.

Case IV. P. G., male, 42 years of age, was admitted to the hospital with a diagnosis of traumatic arthritis of the right hip of 18 years' duration. Except for this complaint, the patient was in good general condition. He was given morphine sulfate, Gm. 0.010, and atropine sulfate, Gm. 0.0004 hypodermically, and sodium pentobarbital, Gm. 0.24 intramuscularly at 8:50 a.m. The patient came to the operating room for an arthrodesis of the right hip and osteotomy of the right femur. Ethylene-oxygen anesthesia, (75-25 per cent), was

begun at 9:35 a.m., and maintained uneventfully for a period of two hours at which time it was noted that the patient was in light anesthesia and there was slight movement of the extremities. Ten mg. of dolophine was then given hypodermically. Ten minutes later his respiratory rate dropped rather suddenly from 16 to 6 per minute, but the tidal volume was adequate. The ethylene-oxygen mixture (75-25 per cent) was changed to 50 per cent and one cubic centimeter of coramine and 0.5 gms. of caffeine sodiobenzoate were given intravenously. There was no apparent effect upon the respiratory rate. Carbon dioxide (0.6 liter) was added to the inspired atmosphere and the respirations increased to 14 per minute. Upon discontinuing the carbon dioxide the respiratory rate again dropped to seven per minute. The patient's color remained good, and respirations were deep and full. At the termination of the surgical procedure, two hours after the onset of respiratory depression, the ethylene-oxygen anesthetic was discontinued, and 100 per cent oxygen was given by mask. The respiratory rate rose to 16 per minute. The post-operative course was uneventful.

The following case illustrates one instance in which the lack of respiratory depression from dolophine was advantageous:

Case VI: M. K., female, age 25 years, was admitted to the hospital because of gradual onset of quadriplegia. She had difficulty in swallowing and expectorating accumulations of saliva, and there was a partial respiratory paralysis. A diagnosis of tumor of the cervical cord was made. The patient was in the eighth month of gestation. A cervical laminectomy was performed in the sitting position, under local anesthesia. Because of apprehension, it was necessary to administer a sedative. Morphine sulfate was not used for fear of increasing the respiratory embarrassment. Five mg. of dolophine was administered intravenously, and ten minutes later 5 mg. was given subcutaneously. Good sedation was obtained, and there was no depression of respiration. This was of interest for in most patients it does not lessen apprehension.

Postoperative Use. — Dolophine was administered to 240 patients for relief of post-operative pain. Of these, 177 were males and 63 were female patients. A large proportion of the patients had urological procedures performed including: 49 prostatectomies, 12 nephrectomies and 6 orchiectomies. There were 74 miscellanous urological operations including: cystocopies, penile amputations, ureterosigmoidostomies, hydrocelectomies and total cystectomies for carcinoma of the urinary bladder.

Dolophine was used following intra-abdominal operations which included: 32 subdiaphragmatic vagotomies, 11 colostomies and 7 cholecystectomies. There were 8 miscellaneous abdominal procedures including: gastric resections, appendectomy, and combined abdomino-perineal resections.

Dolophine was also employed as an analgesic following 41 miscellaneous surgical procedures including thoracic operations, leg amputations, thyroidectomies, setting of fractures and brain surgery.

The dosage used in this series was 10 mg. every 3 to 4 hours in the greater majority of instances. Some patients received 5 mg. doses, and a few were given 15 mg. doses. In most of these patients dolophine provided satisfactory analgesia, especially when the drug was administered every 3 hours. There were several instances in which dolophine was unsatisfactory, but good analgesia was obtained when morphine sulfate or demerol were used. In several patients with advanced carcinoma involving pressure on nerve trunks and damage to vital organs, dolophine in 10 mg. doses was unsatisfactory, but in these cases morphine sulfate and demerol were also inadequate.

There were two patients who were sensitive to morphine sulfate, and three for whom morphine sulfate did not provide satisfactory analgesia. Dolophine proved satisfactory in these five patients.

Our present series of 270 patients represents a total of 1,274 administrations of individual doses of dolophine. Of these 186 were 5 mg., 5 were 7.5 mg., 1,010 were 10 mg. and 73 were 15 mg. doses.

Transient dizziness or "light-headedness" was the most frequent untoward reaction, and this was noted in approximately one-half of the patients. There were no instances of constipation or of nausea and vomiting attributable to this drug.

In our total series of 382 patients there was no evidence of addiction or habit formation, and there were no withdrawal symptoms when the administration of this drug was stopped. However, only 5 patients received the drug for periods longer than two weeks. A recent report by Isbell, Eisenman, Wikler, Daingerfield and Frank[4] revealed that dependence on dolophine can be developed, and that its use should entail the same careful control as any other drug with addiction potentialities. The abstinence syndromes following abrupt withdrawal of dolophine were mild.

SUMMARY

On the basis of clinical experience with dolophine in a total of 382 patients, we believe it to be a drug of definite analgesic value. The incidence and severity of side reactions is less than that with morphine in equal doses. Nausea, emesis and constipation have not been noted with this drug. Respiratory depression is rare. The principle side reaction to dolophine is a brief period of dizziness or "light-headedness" which is not severe, and does not constitute a contraindication to its use. The drug appears to be equally effective milligram for milligram with morphine. We believe that the dose of dolophine in patients with severe pain should probably be increased to 15 mg. The relief from pain obtained from 10 mg. of dolophine is about of the same degree as that obtained with 10 mg. of morphine sulfate, but the duration of action appears to be somewhat shorter. Dolophine may be administered without reaction to patients who are sensitive to the opium derivatives. We have not noted habituation or addiction in this series of patients. Evidence presented elsewhere reveals the addiction potentialities of dolophine. Euphoria and sedation are not as marked with dolophine as with morphine, so that dolophine seems to be inferior to morphine sulfate as preoperative medication. When dolophine is combined with morphine sulfate or sodium pentobarbital, it usually provides satisfactory sedation. Three of the four patients who developed respiratory depression had received this combination, so that caution is necessary in its use in combination with other analgesics or sedatives, and particularly during inhalation anesthesia.

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Case Report

TOOTH PICK PERFORATION OF THE ILEUM

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The normal human digestive tract is remarkably adaptable for receiving a variety of objects superfluous to the needs of alimentation. Usually tacks, coins, toys and an unending variety of foreign bodies are moved along by peristaltic action and eliminated without mishap. Certain potentially harmful ingesta may be enveloped in a food mass and so transverse the esophagus with impunity. They may also orient themselves in the axial stream of the gastric discharge through the pylorus. The main difficulty is seen with pointed, long and pronged objects which become wedged crosswise into the small bowel.

A tooth pick is in the latter category and is frequently employed as a skewer for food preparations. In this role it is at times broken and deeply embedded in chunks. Stained with the juices of cooking it may escape notice even when whole. Chewed with food, especially by people wearing dentures it may even elude detection and be swallowed.

Where bowel motility is altered by adhesions between the coils or to the abdominal wall, lodgement of a foreign body in the lumen is facilitated. In the following report such adhesions were present in a patient who was additionally unfortunate in swallowing a tooth pick.

Case Report: The patient was a white female, 57 years of age, who weighed 243 pounds (110.5 Kg.). Her medical history indicated the usual childhood diseases. She had born six children. She had had a cholecystectomy performed thirty years before her present illness. Highly significant is the fact that she had had a laparotomy and drainage for a ruptured appendix with peritonitis eight years ago. This was followed by an appendectomy nine months later and by laparotomy for intestinal obstruction three years later.

In the interval between her operation for bowel obstruction and her present hospital stay the patient had four attacks of intermittent epigastric pain, constipation, backache, fever and three times had a right-sided abdominal mass. On December 27, 1947, the first of these episodes occurred and ended two days later with a spontaneous resolution of symptoms. On June 23, 1947, the tenderness in the abdomen was marked. After two days of treatment with one gram of sulfathaladine orally every four hours, 50,000 units of penicillin intramuscularly every three hours and warm compresses to the abdomen, the mass was incised. About 500 c.c. of foul-smelling pus escaped from the incision. The patient made a speedy recovery and by July 16, 1947, the incision was healed.

The third attack occurred while the patient was on a distant visit. She was hospitalized and shortly thereafter spontaneously ruptured her abdominal swelling and discharged large amounts of pus. This discharge diminished gradually for two weeks and then the fistulous opening closed.

Again on September 26, 1947, the abdominal pain and mass recurred and there was spontaneous evacuation of pus through the old fistulous tract.

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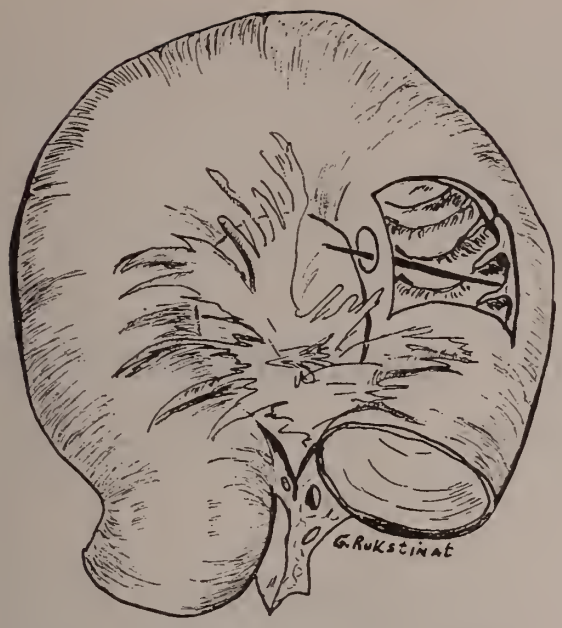


Figure 1. Illustrating the method of perforation of the ileum by a tooth pick.

On October 13, 1947, the patient was admitted to the hospital for surgical intervention. At the time of admission she had a temperature of 102°F., but no mass in the abdomen. The patient had lost 43 pounds since the onset of her symptoms, nine months previously.

Physical Examination: Revealed an acutely ill patient with a fever of 102.8°F., a rapid pulse, a blood pressure of 110/84, and tenderness on the right side of the abdomen. A lesion of the right colon was suspected but a barium enema was followed by x-ray studies which were negative.

The Laboratory findings were as follows: The red blood cells were 4·450,000 and the white cells 10,500 per cu. mm. The hemoglobin was 13 grams; the differential blood count was 84% polymorphonuclear leucocytes and lymphocytes 16%. The urine and Kahn tests were negative.

Treatment: The patient was given one gram of sulfathaladine orally every four hours. A blood transfusion of 500 c.c. was given October 16, 1947, and surgery was performed October 17, 1947. Cyclopropane anesthesia and intocostrin were used.

A right rectus incision was made in elliptical manner to circumscribe the fistula. With careful dissection the peritoneal cavity was entered at the upper end of the incision. Diffuse dense adhesions were severed and a mass 15 cm. in diameter was freed from its attachments to the viscera and anterior abdominal wall. The mass was formed by extensive adhesions between the coils of ileum and mesentery. Approximately 30 cm. of the ileum, including the mass, was resected and an end-to-end anastomosis was performed, 12 cm. proximal to the ileo-cecal valve. A Witzel tube ileostomy was performed six inches proximal to the anastomosis to act as a safety valve. The tube was brought to the outside through a stab wound to the right of the incision. The abdomen was closed with no drainage. Levine suction was inserted and used for 48 hours.

The patient was given another 500 c.c. blood transfusion and received 3000 c.c. venoclysis daily for three days using 2000 c.c. of 5% glucose in distilled water and 1000 c.c. 5% glucose in normal saline. The patient also received 1000 mgm. vitamin C and 10 mgm. vitamin B complex, daily. Penicillin, 50,000 units, were given intramuscularly every three hours for five days. The patient was quite ill for the first 48 hours but improved steadily thereafter. She had a liquid bowel movement on the third post-operative day. The Witzel tube was removed several days later. The patient had a secondary wound infection which lasted about two weeks but left the hospital in good condition, November 2, 1947, and has been well and active since.

Pathological Findings: A portion of small bowel about 45 cm. long is twisted into an irregular mass by a series of adhesions between the bowel and its various coils and between the coils and the mesentry. Near the middle of the mesentery mass there is an irregular puckering and in one place there is a fistulous tract about 22mm. long, now partially laid open and about 12 mm. wide. The bowel is followed in its entire course and near the very center of the mass there is a round, slightly bent tooth pick in the lumen. One end of this projects into the fistulous tract.

Diagnosis: Extensive adhesions between the coils of the small bowel and mesentery. Foreign body (tooth pick) in the small bowel with perforation of the wall and fistulous tract formation.

News of the State

PERSONALS · COMING EVENTS · MARRIAGES · DEATHS

ADAMS COUNTY

Society News.—Dr. Robert Elman, St. Louis, addressed the Adams County Medical Society, March 8 in Quincy on "The Problem of Starvation in the Hospital Patient."

Personal.—Dr. Walter Stevenson, Quincy, recently addressed the student body at Tulane University, New Orleans, on "Cataract Surgery in India" and gave a paper before the Orleans Parish Medical Society, on "The Medical Care of Squint."

In Practice Seventy Years.—Dr. Edmund B. Montgomery, Quincy, was honored at a meeting of the Adams County Medical Society, March 8. According to the Rushville Times, Dr. Montgomery is the oldest active doctor among the membership of the Illinois State Medical Society. He is ninety years old and has been in practice for seventy years.

BUREAU COUNTY

Society News.— Dr. Morris Fishbein, Chicago, editor of the Journal of the American Medical Association, addressed the Bureau County Medical Society and the Bureau County Bar Association, March 9, at the Bureau Valley country club. The county medical society was addressed April 16 by Dr. John F. Pick, Chicago, on "What the General Surgeon Must Know About Plastic Surgery."

CHAMPAIGN COUNTY

Champaign County Society Endorses Dr. Lamkin for Coroner.—The Champaign County Medical Society went on record, March 16, as endorsing Dr. W. F. Lamkin, Champaign, for reelection as county coroner. The endorsement was based on a belief that the coroner should be a physician. Only a physician is qualified to conduct investigations and inquiries into the cause of death. As they voted the endorsement, the doctors praised Dr. Lamkin's record as coroner since 1942.

COOK COUNTY

Personal.—Dr. Ernest Irons was elected head of the board of the Municipal Tuberculosis Institute. Former secretary of the board, he succeeded Francis R. Lyons, who died last month. At the election of officers, Philip J. Weber, resident manager of the Edgewater Beach Hotel, was elected secretary.—Dr. Bertha Van Hoosen, dean of women physicians in Chicago, discussed "How to Keep the Doctor's Financial Ledger" at an assembly hour at the University of Illinois College of Medicine, March 31, under the auspices of the Alpha Epsilon Iota.

Society News.—Dr. Leon Unger, Chicago, gave two lectures on "Diagnosis and Treatment of Bronchial Asthma" before the Sociedad Mexicana de Alergistas in San Luis Potosi, Mexico, in January. He also gave a lecture on "Bronchial Asthma in Children" before the staff of the Childrens Hospital of Mexico City, in February.—Dr. Philip Thorek, Chicago, addressed the Polish Medical Society, March 2, in Chicago, on "Carcinoma of the Esophagus." He also gave a presentation on "Surgical Emergencies" before the Livingston County Medical Society, March 11, in Pontiac.—Dr. Maurice H. Cottle, Chicago, spoke before the Michigan Triological Society at its meeting in Grand Rapids, March 25, on "Surgery of the Nasal Septum in Adults and Children and its Association with Rhinoplastic Surgery." The paper was supplemented with slides and kodachrome movies.—Dr. Carlo S. Scuderi recently returned from a trip to Arizona and New Mexico. On February 16, he addressed a group at the General Hospital at Las Almos, New Mexico, on "Backache from an Industrial Standpoint" and on February 17, he spoke before the New Mexico Medical Society at Albuquerque, New Mexico, on "Common Fracture Problems".

City Health Divisions Increase.—Addition of several new divisions to the city health department is being made in line with recommendations in the recent Chicago-Cook County health survey, according to newspaper reports.

The Bacon Lecture.—Dr. Nicholson J. Eastman, an outstanding authority on obstetrics, delivered the 1948 Charles Sumner Bacon lecture at 1 p. m. Wednesday, April 14, at the University of Illinois, 1853 W. Polk street.

Dr. Eastman, professor of obstetrics at Johns Hopkins University, spoke on "Pelvic Mensuration; A Study in the Perpetuation of Error."

Dr. Eastman is a Diplomate of the American Board of Obstetrics and Gynecology. He is a member of the American Association of Obstetricians, Gynecologists, and Abdominal Surgeons, and a member of the American Gynecological Society.

The Charles Sumner Bacon series was inaugurated at the University of Illinois College of Medicine in 1928 in honor of the late professor emeritus of obstetrics and gynecology. At that time, the members of the faculty and friends of Dr. Bacon contributed the sum of $5,000 to found the lectureship.

Irvine McQuarrie Gives Zeit Lecture.—The Fifth Annual Robert Frederick Zeit Lecture was delivered, April 22, by Dr. Irvine McQuarrie, professor of pediatrics of the University of Minnesota School of Medicine, Minneapolis, on "Medical Problems and Pracitce in Japan." The lecture is sponsored by Xi (Northwestern) Chapter of Alpha Kappa Kappa and presented in Thorne Hall at Northwestern University Medical School.

Portrait of Dr. Bassoe.—A portrait painting of the late Dr. Peter Bassoe, well-known Chicago neurologist, was presented to the University of Illinois at 4 p. m., Friday, March 26, by the Central Neuropsychiatric Association.

The presentation was made by Dr. Percival Bailey, a past president of the Association, to Dr. John B. Youmans, dean of the college of medicine.

The portrait was hung in the Quine Medical Library at the Illinois' Chicago Professional Colleges. The portrait was painted by Oskar Gross.

Dr. Bassoe was the founder and first president of the Central Neuropsychiatric Association. He was a member of a committee appointed by the late Governor Henry Horner which drew plans for the establishment of the Illinois Neuropsychiatric Institute.

Pusey Memorial Lecture.—The second William Allen Pusey Memorial Lecture will be delivered at the Palmer House on Friday evening, May 28 at 8:00 o'clock by Dr. J. Christian Bay, Librarian Emeritus, The John Crerar Library. His subject will be "The Search for the Vital Principle."

Branch Meeting.—The North Shore Branch of the Chicago Medical Society was addressed April 6 at the Edgewater Beach Hotel by Doctors Wesley Gustafson on "Low Back Pain" and Herbert Schmitz on "Treatment of Carcinoma of the Uterus." The discussants were Doctors Claude Lambert and H. E. Davis, respectively.

Dr. Van Hoosen Honored.—The University of Michigan Alumnae Club of Chicago presented Dr. Bertha Van Hoosen, pioneer woman physician on March 23 with a citation as "Outstanding Michigan Woman of the Year." The award was made at a Michigan day dinner in the Chicago Bar Association, 29 South La Salle Street, observing the anniversary of the school's founding. Dr. V. A. Lathan presented the citation to Dr. Van Hoosen in recognition of her sixty years of accomplishment in the field of medicine. Dr. Van Hoosen, who was guest speaker, received her bachelor of arts degree from Michigan in 1884 and her medical doctorate in 1888. She also received an honorary master of arts degree from the school in 1913. Her autobiography, "Petticoat Surgeon", was published last year.

DE WITT COUNTY

New Health Officer.—Effective January 5, 1948, Dr. Corinne S. Eddy was appointed health officer for the DeWitt-Piatt County Health Department with offices in Clinton. A graduate of the University of Chicago, Dr. Eddy received her medical training at the University of Illinois. She also holds a master's degree in public health from Columbia University in New York City. Dr. Eddy has had seven years of experience in public health work, having served as health officer in counties of Alabama and Mississippi, and as administrative director for the Lincoln City, Lancaster County Department of Health in Lincoln, Nebraska.

DU PAGE COUNTY

Society News.—Dr. George V. LeRoy, Chicago, discussed "Clinical Hematology" before the Du-Page County Medical Society, March 17, at the Memorial Hospital in Elmhurst.

New Health Officer.—Dr. Charles H. Benning, formerly director of public health at Oak Ridge, Tenn., has been appointed health officer of Du Page County, according to the Chicago Sun-Times.

EFFINGHAM COUNTY

New Health Officer.—Dr. Fred O. Tonney has been named health officer for Effingham and Shelby Counties. Dr. Tonney will have offices in the Holman building on West Fayette Avenue.

FRANKLIN COUNTY

Society News.—Dr. Leo Brown, Herrin, addressed a public meeting March 23 in Sesser, on "Cancer." He spoke under the auspices of the Sesser Woman's Club Health Committee.

GREENE COUNTY

Society News.—Dr. Theodore R. Van Dellen, Chicago, spoke before the Greene County Medical Society in Carrollton, March 12, on "The Use of Penicillin and Antibiotics".

HENRY COUNTY

Retired Physician in Demand as Health Speaker.—Dr. John H. Murphy, Geneseo, who retired from active practice for reasons of health, has built up a new and popular reputation as a speaker on health educational subjects. At first, Dr. Murphy began teaching three days a week even while he was still in practice but when he retired he found that lecturing gave him an added interest so he expanded it to five days a week. He started teaching in the Geneseo public schools but now carries on not only in Geneseo but in Rock Island and Moline. During the coming school year, he will teach in East Moline also. Dr. Murphy is a life member of the Iowa and Illinois Central District Medical Association.

A coronary thrombosis necessitated Dr. Murphy's retirement. However, according to the Iowa and Illinois Central District Medical Association Bulletin, he stated that "when it becomes necessary for a physician to retire, he should still continue to live — not merely exist. He will need something more than his hobbies and the memories of the past." Dr. Murphy's educational lectures on sex were stimulated by a request from the superintendent of the public schools of Geneseo. An added thought of Dr. Murphy's in the recent bulletin is expressed: "By education and experience, a doctor may be fitted to do part time in any of the following: Medical abstracting, medical research, teaching, medical counseling, school counseling, industrial psychiaty, writing or lecturing for the laity on medical subjects, etc. There is employment for scores of men in the light occupation which I have chosen for my old age. Why vegetate?"

KANKAKEE COUNTY

Personal.—Dr. Ernest S. Klein, Chicago State Hospital staff member, has been promoted to the assistant superintendency at Kankakee State Hospital, succeeding Dr. Abraham Simon who had been named superintendent of Alton State Hospital. Dr. Klein has been in state service since July, 1937, and before going to Chicago State, was on duty at Dixon State Hospital. He was in military service in World War II as assistant neuropsychiatry chief at Camp Crowder, Mo., and later at Camp Dodge, Ia. Subsequently he was commanding officer of the Fort Leavenworth, Kan., Disciplinary barracks station hospital.

KNOX COUNTY

Society News.—Dr. Edmund Smolik, St. Louis, addressed the Knox County Medical Society in Galesburg, resently, on "Prefrontal Lobotomy."

MADISON COUNTY

Personal.—At the last meeting of the Pennsylvania Railroad Physicians and Surgeons, held at the Palmer House in Chicago, Dr. E. F. Moore, Collinsville, secretary of the Madison County Medical Society, was elected vice president of the Association. He has served as a physician for the Pennsylvania Railroad for about fifteen years, and being elected to this office puts him in line for the presidency of the organization next year.

MONTGOMERY COUNTY

Society News.—Dr. Harry A. Oberhelman, Chicago, addressed a joint meeting of the Montgomery and Macoupin County Medical Societies, March 23, at the Carlinville Country Club, Carlinville, on "Problems in Gall Bladder Surgery."

MARION COUNTY

Society News.—Dr. Leo Gottlieb, assistant professor of clinical medicine, Washington University School of Medicine, addressed the Marion, Clinton and Washington County Medical Societies in Centralia, March 18, on "Thyrotoxicosis."

MASSAC COUNTY

Society Election.—At the annual election of officers held by the Massac County Medical Society, Dr. V. O. Decker was elected president, succeeding Dr. S. P. Ward. Dr. Harry Wright was elected vice president and Dr. G. F. Cummins was reelected secretary-treasurer.

PEORIA COUNTY

Society News.—Dr. Elliott P. Joslin, professor emeritus Harvard Medical School, physician in chief, Deaconess Hospital, Boston, addressed the Peoria Medical Society, March 16, at the Hotel Pere Marquette, Peoria, on "Diabetes."

RICHLAND COUNTY

Election of Officers.—Dr. S. A. Jackson was elected president of the Richland County Medical Society at a recent meeting succeeding Dr. Ralph King. Dr. T. F. Summers is vice president and Dr. John Stull, secretary-treasurer.

ROCK ISLAND COUNTY

Society News.—Dr. Paul Holinger, Chicago, addressed the Rock Island County Medical Society, March 9, on "Cancer of the Larynx and of the Lung." Dr. J. W. Seids, Moline, was elected a life member of the society at this meeting. Dr. C. Wesley Eisele, Chicago, addressed the society on February 10 on "Problems in the Diagnosis and Treatment of Brucellosis". He gave a similar address on February 25 before the St. Joseph County Medical Society in South Bend, Ind.

ST. CLAIR COUNTY

St. Clair Society Votes to Admit Negroes.—By a vote of 32 to 10, the by-laws of the St. Clair County Medical Society have been amended to admit Negro physicians and surgeons to membership in the organization, it is reported.

SANGAMON COUNTY

Heart Discussion.—A joint meeting of the Illinois Heart Association and the Sangamon County Medical Society was addressed March 4 by Doctors Harry A. Durkin, president of the Illinois Heart Association, on "American Heart Associations" and Arlie R. Barnes, president of the American Heart Association, on "The Treatment of Congestive Heart Failure."—The Springfield Medical Club was addressed at its annual meeting, March 25, by Dr.

Robert Lee Sanders, Memphis, Tenn., on "Surgery in Peptic Ulcer, Including Vagatomy."

TAZEWELL COUNTY

Society Holds Dinner Dance.—On April 14 the Tazewell County Medical Society conducted a dinner dance which was the first post-war party of the society. The affair was held at the Pekin Country Club. Recently elected officers of the society include Drs. Nelson A. Wright, Pekin, president; Harold Feldman, Pekin, vice president, and Kenneth M. Calhoun, Tremont, secretary.

WARREN COUNTY

Crippled Children's Clinic Held.—The Warren County Crippled Children's Clipic was held at the Monmouth Hospital, March 18, under the auspices of the Warren County Medical Society in cooperation with the National Foundation for Infantile Paralysis. Dr. Richard Bennett, Jr., Chicago, conducted the clinic.

Science Contest Sponsored by County Society.—The Warren County Medical Society has posted a $100 cash prize to stimulate interest in science among students of Monmouth High School, according to the Monmouth Atlas. The money will be divided into four prizes, two of $30 and two of $20. There will be a first prize of $30 and a second prize of $20 in each of two fields, physical science and biologic science, and any students enrolled in the various science courses may compete, the courses including physics, chemistry, biology and physiology. A committee of townspeople will select the winners. The prize fund has been set up by a physician who prefers to remain anonymous, according to Dr. Joseph C. Sherrick, Monmouth, secretary of the Warren County Medical Society.

WHITESIDE COUNTY

Society News.—A joint meeting of the Lee and Whiteside County Medical Societies was addressed in Sterling, April 12, by Dr. Rexford Finegan, assistant medical director of the Metropolitan Life Insurance Company of New York, on "Life Insurance Examinations and Recent Life Insurance Statistics."

WINNEBAGO COUNTY

Society News.—The Winnebago County Medical Society was addressed by Frank H. Gane, Ph. D., assistant professor of finance, Northwestern University, at a noon luncheon, March 19, on "The Relation of Our National Debt to Current Financial Conditions."

GENERAL

Society Awards Certificates of Attendance.—At the 1947 meeting of the Mississippi Valley Medical Society, certificates of attendance were awarded to the following members who had attended ten annual meetings during ten or more consecutive years of active membership: J. F. Ross, Golden; P. H. Dechow, Kinderhook; C. M. Fleming, Rushville; R. A. Harris, Quincy; G. E. Kirby, Spring Valley; and M. Pinson Neal, Columbia.

Meeting of Chest Physicians.—The Illinois Chapter of the American College of Chest Physicians was addressed at the Congress Hotel, Chicago, April 16 by the following Chicago physicians: Dr. Johann Bornstein, on "Bronchial Lavage as a Diagnostic Aid in Chest Diseases"; Dr. W. E. Adams, "Differential Diagnosis in Cystic Disease of the Lung"; and Drs. Willard Van Hazel, Paul H. Holinger, and Robert J. Jensik, "Adenoma of the Bronchus." The discussants on the program were Drs. William J. Bryan, Rockford; J. A. Stocker, Springfield; and Jerome R. Head, Chicago.

Conference in Neuropsychiatry.—A postgraduate conference in neuropsychiatry was held at the Dixon State Hospital, Dixon, March 31, under the auspices of the State Department of Public Welfare. The speakers on the afternoon program, all Chicago physicians, included the following: Dr. Joseph C. Rheingold, "The Anxiety State"; Dr. Heinz Kohut, "Psychiatric Consultations in a General Hospital"; Dr. William H. Haines, "The Criminal Psychopath"; Dr. David B. Rotman, "Functions of a Court Psychiatrist"; Dr. Sophia Schroeder Sloman, "Fundamentals of Child Psychiatry"; Dr. V. G. Urse, "Interpretation of Revised Mental Health Act"; Dr. Roland P. Mackay, "Common Types of Headache and Their Management"; Dr. Lewis J. Pollock, "Peripheral Nerve Injuries". The evening speaker was Dr. W. W. Bauer, Chicago, who discussed "The Nation's Health is Good." Dr. Warren G. Murray, superintendent of the Dixon State Hospital, acted as host at a 6 p. m. dinner.

"For The Common Good"

"The Doctor and His Medical Society," the exhibit of the Illinois State Medical Society, was on display in Springfield, May 8-10, during the three day meeting of the Illinois Congress of Parents and Teachers. Lists of county medical society officers, Doctors and Horses, and the Doctor and His Medical Society, two educational brochures, and varied copies of Health Talk were distributed at the Convention. Mrs. Everett Butler, Alton, Illinois, State Chairman, Health and Summer Round-Up Committee, Illinois Congress of Parents and Teachers, paid public tribute to the Illinois State Medical Society in an expression of appreciation of continued cooperation. A resolution was adopted by the Congress expressing thanks to the Illinois State Medical Society for its cooperation.

Mrs. Margaret B. Cowden, Director, Bureau of Health Education, Illinois Department of Public Health, in her talk before the local summer round-up chairmen, emphasized the need of knowing the local

resources and emphasized the county medical society's cooperation in all activities.

Several hundred copies of HEALTH TALK were mailed two days following the session to the city nurse of Springfield and a local health chairman for distribution at school round-ups the following day.

Dr. Paul S. Baur, Secretary of the Alexander County Medical Society, developed local meetings in Cairo, April 22, to utilize the time of Dr. W. W. Bauer, Director, Bureau of Health Education, American Medical Association, during a stop-over in Cairo on his return from a meeting of the Kentucky Congress of Parents and Teachers. This was the first request received from the AMA Bureau of Health Education in its new program of making available members of the headquarters staff while enroute to other meetings.

The Effingham County Medical Society, Dr. P. A. Adams, Secretary, has worked out a program whereby the local papers will use HEALTH TALK.

HEALTH TALK is now a regular feature of the editorial page of the Chicago Defender.

Visitors in the Chicago office recently included Father P. J. Toomey, C. S. V., teaching fellow in psychology, De Paul University.

The Secretaries Conference in Peoria has proved successful from a standpoint of information received. Two new requests have come in for help in obtaining speakers: Kane County Medical Society, and the Pike-Calhoun Counties Medical Society.

The Lawrence County Health Department, of which Dr. Dale E. Scholz is medical director, recently published an outline of a sample one day's activities, under the auspices of the Lawrence County Medical Society. Coupled with the schedule, indicating routine efforts of the staff of the department, appears HEALTH TALK of the Educational Committee of the Illinois State Medical Society. The issue used was "Health Police — the Public Health Nurse." In addition, answers were given to the question, why a health officer does not immunize school and pre-school children instead of the school board or Parent-Teacher Association employing a private physician to carry out these protective measures: (1) It would be impossible for a health officer to immunize all school and pre-school children in Lawrence and Wabash Counties and have any time left to carry out his other duties and direct the program outlined above; (2) It would not leave the free choice of a physician up to the individual school board or parent teachers association. The health officer would be "marching in" so to speak to each school. This is exactly what your health department does not intend to do; (3) A health officer is employed to direct a health department much the same as a hospital superintendent is employed to direct a hospital. Has anyone ever heard of a hospital administrator doing surgery or obstetrics or carrying out other procedures in the field of private practice. His job is one of administration — to formulate hospital policies — . . . Similarly a health officer's job is not the private practice of medicine."

Lectures Arranged Through the Educational Committee of the Illinois State Medical Society; Dr. Charles P. Blair, Monmouth, Chairman:

Mr. Edward F. Stegen, Association Administrator, National Physicians Committee for the Extension of Medical Service, Beverly Hills Town Meeting, March 21, Socialized Medicine.

Dr. Robert R. Mustell, Chicago, Division Street Y. M. C. A., Chicago, March 29, Prevention of Death in the Boxing Ring.

Dr. Julius E. Ginsberg, Chicago, Chemistry Club of Bowen High School, Chicago, April 9. Cosmetics and Care of the Skin You Love to Retouch.

Dr. Adrian D. M. Kraus, Chicago, Copernicus School P. T. A., Chicago, April 13, on "Shots."

Dr. W. W. Bauer, Director, Bureau of Health Education, American Medical Association, Chicago, Fenger High School, Chicago, April 14, That's What You Think.

Dr. Arthur S. Webb, Glen Ellyn, Ill., Grundy County Federation of Women's Clubs, in Gardner, April 15, on Tuberculosis.

Dr. Walter Lawrence, Berwyn, First Career Conference of North Central College, Naperville, April 22, Medicine as a Career.

Lectures Arranged Through the Scientific Service Committee of the Illinois State Medical Society; Dr. Robert S. Berghoff, Chicago, Chairman:

Dr. Harry A. Oberhelman, Chicago, Macoupin County Medical Society, Carlinville, March 23, Problems in Biliary Tract Surgery.

Dr. Irving Mack, Chicago, Effingham County Medical Society, Effingham, March 18, Drug Administration in Heart Disease.

Dr. Paul Dirkse, Peoria, McDonough County Medical Society, Macomb, March 25, Management of Advanced Carcinoma.

Dr. Edward G. Tatge, Evanston, Kane County Medical Society, Elgin, April 14, The Allergic Constitution.

Dr. Charles D. Krause, Chicago, Effingham County Medical Society, Effingham, April 15, Thyrotoxicosis in Pregnancy.

Dr. Harold W. Miller, Chicago, West Side Branch, Chicago Dental Society, April 20, Discussion of Medical Insurance: Its Status in the Future.

Dr. John S. Scully, Chicago, Fulton County Medical Society, Canton, April 23, Surgical Management of Urolithiasis.

Dr. John L. Reichert, Chicago, La Salle County Medical Society, La Salle, May 13, Recent Trends in Immunization.

Dr. Harry H. Boyle, Chicago, Effingham County Medical Society, Effingham, May 20, Nephritis in Childhood.

Dr. Eugene L. Walsh, Chicago, McDonough County Medical Society, Bushnell, May 28, Chronic Bronchitis.

Dr. Leo K. Campbell, Chicago, Vermilion County Medical Society, June 1, Management of Diabetes Mellitus Complicated by Surgical and Obstetrical Emergencies.

Dr. Edward L. Cornell, Chicago, Will-Grundy County Medical Society, Joliet, June 10, Vaginal Itching.

Dr. William M. McMillan, Chicago, Will-Grundy County Medical Society, Joliet, June 24, Surgical Treatment of Hypertension.

Conference Arranged through Postgraduate Education Committee of the Illinois State Medical Society; Dr. Robert S. Berghoff, Chicago, Chairman:

Fourth Councilor District in Kewanee, April 15 (Rock Island, Henry, Stark, Mercer, Henderson, Warren, Knox, Peoria, Hancock, McDonough, Fulton and Schuyler), at the Hotel Kewanee, with Dr. Charles P. Blair, Monmouth, Councilor, Presiding, and the Henry County Medical Society acting as host at the luncheon. Chicago participants will include:

Dr. George F. O'Brien, Chemotherapy.

Dr. Philip Lewin, Back Disturbances with Special Reference to the Disc Syndromes.

Dr. Julius Richmond, Recent Advances in Pediatrics.

Dr. Percy E. Hopkins, Illinois Prepayment Medical Care Plan.

Dr. Ford K. Hick, Emotional Problems of Patients with Organic Heart Disease.

Dr. Philip Thorek, The Peptic Ulcer Problem.

In the evening at dinner, the speakers were Mr. Mr. Frank Preston, Johnson, Kewanee, "The Window Trimmer," and Dr. John Youmans, dean, University of Illinois College of Medicine, on "Nutritional Anemia."

HEALTH DEPARTMENT ACTIVITIES

Report on Rabies. — Pointing out that rabies is widespread among dogs in northern Illinois and has been found lately also in a fox, Arnold P. Benson, Director of Agriculture, and Dr. Roland R. Cross, Director of Public Health of issued jointly recently a statement urging that all dogs be vaccinated or strictly confined and that precautions be taken against marauding foxes. "Man-biting rabid dogs cause a tremendous amount of risk to health, expense, discomfort and inconvenience," Dr. Cross declared. "More than 3,600 individuals were given the Pasteur anti-rabic treatment last year, and about 500 to date this year, as a result of bites by rabid dogs. The total cost for these treatments was upwards of a quarter of a million dollars." Mr. Benson declared that rabid dogs do an immense amount of economic damage by attacking live-stock and causing rabies among cattle, sheep and hogs. "Rabies is already wide-spread among foxes in certain eastern and southern States, notably New York, Alabama and Georgia," Dr. Cross said. "Last week the examination in our laboratories of a fox head from Whiteside County in Illinois proved positive for rabies. This fox had bitten a farm hand and had attacked a herd of dairy cattle on the same farm before it was killed. With this evidence at hand, every effort should be made to prevent the further spread of rabies among foxes. The disease is extremely difficult to control once it gains epidemic magnitude among foxes." Mr. Benson pointed out that his Department may be compelled to place a quarantine on dogs if the spread of rabies gets out of control. Vaccination of dogs was highly recommended by both Benson and Cross as a sensible precaution and an urgent need.

Mortality of So-Called Diseases of Old Age. — Evidence that people are living longer is found in mortality statistics from the State Department of Public Health showing that seven out of every 10 deaths in Illinois are due to the so-called diseases of old age. Of the five leading causes of death in the State in 1946, four — heart disease, cancer, cerebral hemorrhage and nephritis — are diseases characteristic of middle life and old age. In the same category are diabetes and arteriosclerosis which ranked among the first 10 causes of mortality. These six degenerative diseases were responsible for 60,893 deaths in 1946, or more than two-thirds of the total mortality for the State. Statistics also reveal that 90 per cent of the mortality attributed to these six causes was among people 45 years of age or older, with one-half of the deaths occurring among persons past 65. As to the possibility of reducing deaths from these causes, Dr. Roland R. Cross, Illinois Director of Public Health, emphasized that "all of these six degenerative diseases are subject to at least some degree of control in most cases through self-discipline and through the intelligent use of medical knowledge. Most forms of heart disease can be controlled indefinitely by following medical advice, while early diagnosis of cancer and appropriate treatment with radium, X-ray or surgery will do much to lower the death rate from this disease. Diabetes can be controlled but not cured with insulin or by a modification of diet and exercise or a combination of the three." Dr. Cross also pointed out that periodic physical examinations, providing

early detection of any important health defects, are perhaps the most effective step in preventing the degenerative diseases of old age.

DEATHS

Gerald R. Allaben, Rockton, formerly of Rockford, who graduated at Rush Medical College in 1913, died at Hines Veterans Hospital, April 1, aged 59. He had served on the medical staff at Hines Hospital for 17 years and was in charge of the tumor section.

Emanuel Robert Clemons, Chicago, who graduated at Meharry Medical College, Nashville, Tenn., 1916, died Dec. 5, 1947, aged 56, of coronary thrombosis.

Thomas Francis Doyle, Chicago, who graduated at Rush Medical College in 1904, died January 16, aged 65, of coronary thrombosis. He was a member of the staff of Woodlawn Hospital, of which he had been one of the founders.

William Henry Gambill, Centralia, who graduated at the University of Michigan Department of Medicine and Surgery, Ann Arbor, Mich., died Dec. 14, 1947, aged 66, of coronary thrombosis. Was a past president of Marion County Medical Society; served as chairman of the advisory board of the Illinois State Department of Conservation.

William L. Karcher, Freeport, who graduated at the Medico-Chirurgical College of Philadelphia in 1900, died in his home March 3, aged 73. He had practiced medicine in Freeport for 46 years.

Henry Markee, retired, Blandinsville, who graduated at Eclectic Medical College, Cincinnati, in 1902, died March 19, aged 85.

Harry Corwin Moss, Carbondale, who graduated at Missouri Medical College, St. Louis, in 1898, died March 23, aged 78. He had practiced medicine in Albion until 1918 and was in Carbondale 30 years.

Leonard J. Munson, Wilmette, who graduated at Jenner Medical College, Chicago, in 1906, died March 13, aged 72. He had been head of Marshall Field & Company's medical bureau for 40 years.

John C. Nunn, Quincy, who graduated at Hospital College of Medicine, Louisville, 1896, died Dec. 24, 1947, aged 75, of a malignant tumor of the right parotid gland.

Samuel Benjamin Peacock, Pittsfield, who graduated at Keokuk Medical College, Keokuk, in 1896, died suddenly of a heart attack, March 6, aged 82. He was awarded a "Fifty Year Pin" in March, 1946.

Lambert William Rosenbaum, Chicago, who graduated at Jenner Medical College, Chicago, in 1913, died Dec. 29, 1947, aged 64, of carcinoma of the liver.

William Grant Ross, retired, Kempton, who graduated at Rush Medical College in 1902, died in his home, Feb. 25, aged 79.

Carl Eric Sandberg, Chicago, who graduated at Chicago College of Medicine and Surgery in 1908, died Jan. 8, aged 78, of cerebral hemorrhage.

Herbert Julius Schmidt, Chicago, who graduated at University of Illinois College of Medicine in 1920, died March 21, aged 52. He was a member of the surgical staff of Englewood Hospital.

Elias Selinger, Chicago, who graduated at Northwestern University Medical School in 1924, died Dec. 21, 1947, in El Paso, Texas, of coronary occlusion, aged 49. He was professor of ophthalmology at Cook County Graduate School; specialist certified by the American Board of Ophthalmology and the American Board of Otolaryngology; on the staffs of Michael Reese, Cook County and Mount Sinai Hospitals and at one time on the faculty of Rush Medical College.

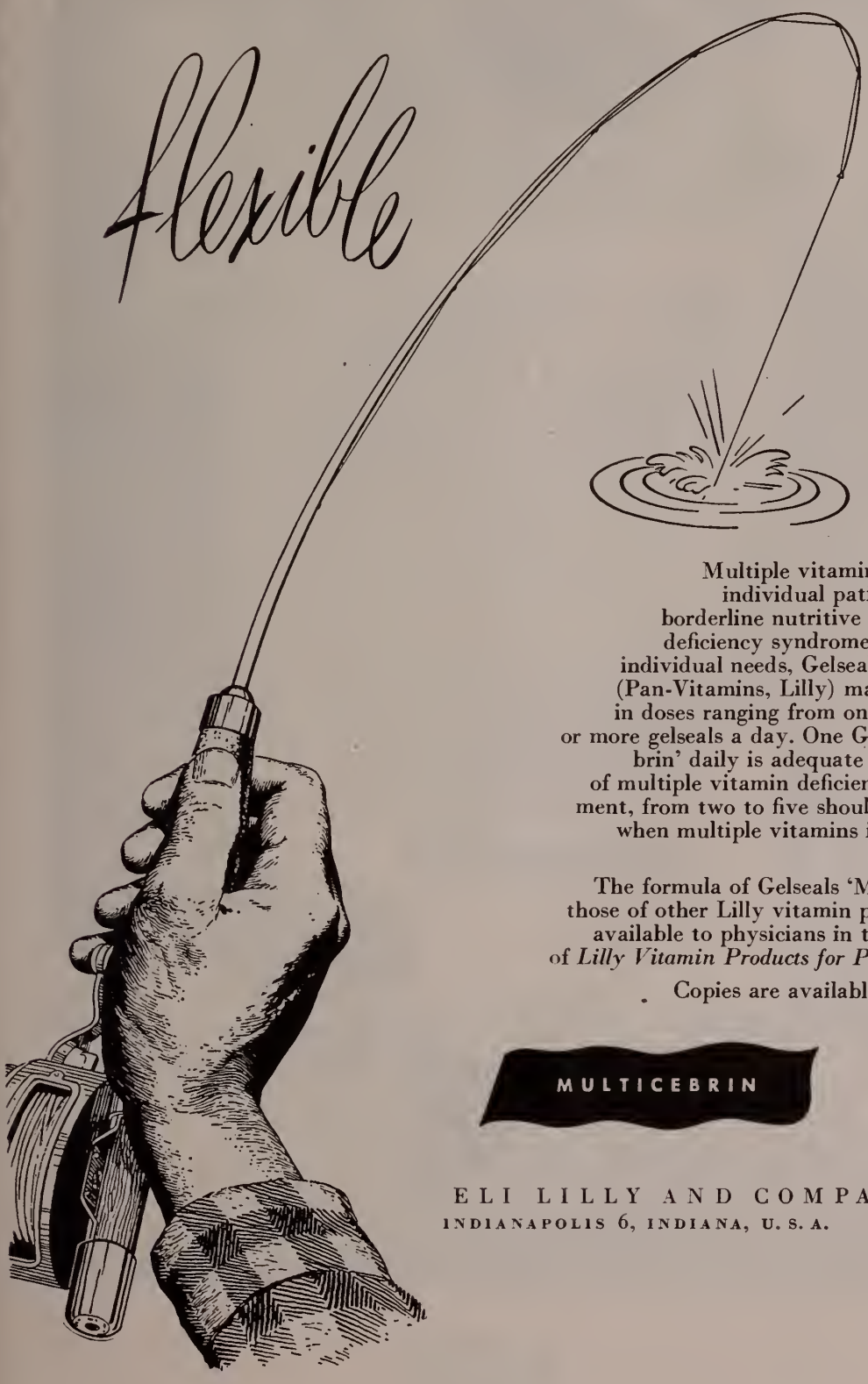
Alexander A. Whammond, Chicago, who graduated at Rush Medical College in 1896, died in Norwegian-American Hospital March 7, aged 75. He was chief of staff of Robert Burns Hospital which he had founded.



When two hundred consecutive autopsies were done in a general hospital which does not knowingly admit tuberculous patients, 41 cases of tuberculosis of all types were found. Of the 41 cases, 31 died of causes other than tuberculosis, and the patients as well as the physician were completely unaware of the disease. In view of the high incidence of undetected tuberculosis, the conclusion is that no patient should be admitted to a general hospital Prensa Med. Argent., Abst., Am. Rev. Tbc., Aug., without X-ray examination of the chest. A. dePaula, 1947.

Think of the benefit from a campaign to stop the spray of infected mouth and nose droplets. Not only would the spread of the disease be slowed but the seasonal surge of diseases like the common cold, influenza, measles, whooping cough and pneumonia would diminish. It would be possible to go to a movie without having a germ-laden spray hurled at one from behind and consequently having to suffer from the other fellow's respiratory infection. Under these conditions, dodging the tubercle bacillus, in and out of the hospital, would be possible for all of us. Ezra Bridge, M.D., NTA Bull., June, 1947.

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Multiple vitamin deficiencies in individual patients vary from borderline nutritive failure to frank deficiency syndromes. According to individual needs, Gelseals 'Multicebrin' (Pan-Vitamins, Lilly) may be employed in doses ranging from one gelseal to five or more gelseals a day. One Gelseal 'Multicebrin' daily is adequate for prophylaxis of multiple vitamin deficiencies. For treatment, from two to five should be prescribed when multiple vitamins in high potency are indicated.

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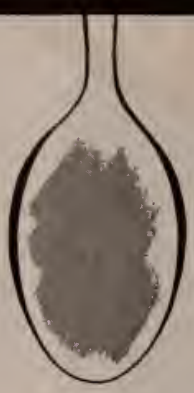
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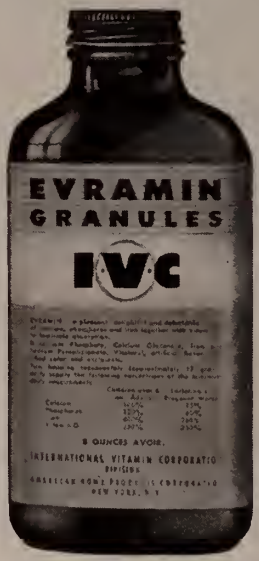
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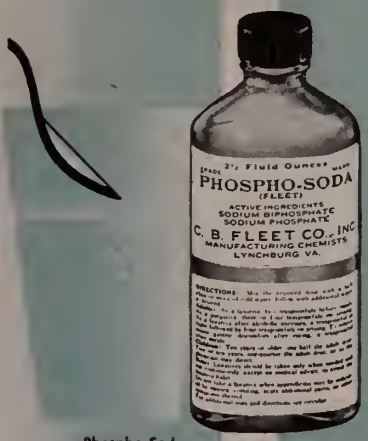
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References: 1. Gold, Harry: In Conferences on Therapy, N. Y. State J. of Med., Mor. 1, 1947. 2. Goodman, L. and Gilman, A.: The Pharmacological Basis of Theropeutics, The Macmillan Co., New York, 1941. 3. Osol, A. and Farror, G. E.: Dispensatory of U.S.A., J. B. Lippincott Co., Philadelphia, 24th ed., 1947. 4. Sollmann, T.: A Monual of Pharmacology, W. B. Saunders Co., Philadelphio, 7th ed., 1948. 5. Loc. cit., p. 750.

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Accepted for Advertising by the Journal of the American Medical Association



Physical Medicine Abstracts

John S. Coulter, M.D.

POLIOMYELITIS
THE PRE-PARALYTIC STAGE AND THE EFFECT OF PHYSICAL ACTIVITY ON THE SEVERITY OF PARALYSIS

W. Ritchie Russell, M.D., F.R.C.P.
Neurologist to the Radcliffe Infirmary, Oxford

In THE BRITISH MEDICAL JOURNAL
No. 4538, Page 1023
December 27, 1947

These case records make distressing reading in view of the evidence afforded by this study that physical activity is dangerous in the pre-paralytic stage. The danger of physical activity throws an extra responsibility on the practioner regarding the need for early diagnosis.

It should be emphasized that these records indicate not only that severe exercise in the pre-paralytic phase is highly dangerous, but that physical activity of any kind may be harmful.

Physical activity of any kind in the pre-paralytic stage increases the danger of severe paralysis.

Complete physical rest in bed during the whole of the pre-paralytic stage to protect the patient from severe paralysis.

THE PREVENTION OF RECURRENCE OF NASAL POLYPS

A comparison of results of the Postoperative use of Radium and Zinc Ion Transfer

A. R. Hollender, M.D.
Miami Beach, Florida

In THE ANNALS OF OTOLOGY, RHINOLOGY & LARYNGOLOGY
Vol. VLI, Number 4, Page 932
December, 1947

1. Nasal Polyps recur frequently even after radical extirpation.

2. Of the postoperative physical methods employed to prevent recurrence of polyps, electrosurgery, radium therapy and zinc ion transfer have been found effective in a large percentage of patients.

3. While radium therapy and ion transfer are equally effective, the former is a more costly method and not always easily available.

4. The results of zinc ion transfer compare favorably with the results of radium application in preventing the recurrence of nasal polyps.

5. Neither radium nor zinc ion transfer is intended as substitute for surgical extirpation, but merely as a postoperative procedure.

6. The claims of certain authors that zinc ion transfer produces severe reactions, anosmia and other harmful effects are prejudiced and have not been borne out in several thousands of treatments.

7. For the purpose for which it is here being advocated Zinc ion transfer is a gratifying addition to the rhinologist's armamentarium.

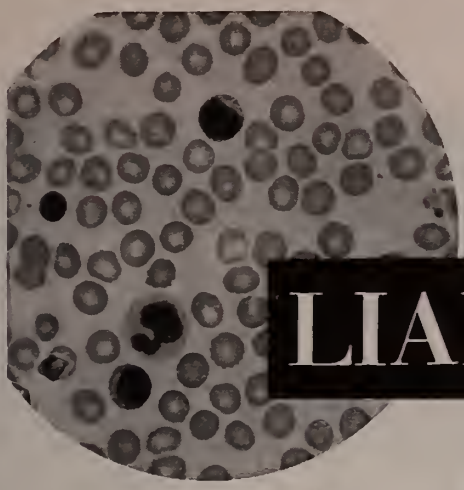
TREATMENT OF RHEUMATOID ARTHRITIS

The American College of Physicians

In ANNALS OF INTERNAL MEDICINE
Vol. 28, No. 1, Page 125
January, 1948

Fever Therapy. The recent trend has been to deprecate artificial fever therapy. Of 74 patients, treated thereby (104 to 105° F. Rectally for six sessions of three hours each: Kettering hypertherm) 44 per cent showed immediate improvement, but in only 18 per cent was it sustained after six months (Fetter and Schnabel). Osborne, Markson, Driscoll and Merriman submitted 27

(*Continued on page* 46)



When it is difficult to categorize the anemia

LIAFON

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DESICCATED LIVER
FERROUS SULFATE
ASCORBIC ACID
FOLIC ACID

A new hematinic combination for the simultaneous administration of *four therapeutic essentials*

DESICCATED LIVER: whole liver with only the water removed. Provides nutritive elements of fresh liver, including the experimentally essential, clinically impressive secondary anti-anemia fractions.

FERROUS SULFATE EXSICCATED: one of the most readily utilized, tolerated and absorbed forms of iron. For *specific treatment* of iron deficiency anemias.

ASCORBIC ACID: often a prerequisite in anemias associated with C avitaminosis. Recent work also suggests it influences iron absorption and red cell maturation.

FOLIC ACID: bone-marrow stimulant factor of the B complex, *specific* for macrocytic anemias of malnutrition, pregnancy, pellagra, and sprue; also of value with parenteral liver therapy in Addisonian pernicious anemia.

Thus, when more than one form of anemia is present or suspected, and is difficult to categorize, *Liafon provides the essentials for therapy.*

EACH LIAFON CAPSULE CONTAINS:	DOSAGE EQUIVALENTS	
	3 capsules daily	6 capsules daily
Desiccated Liver 0.5 Gm. (Approx. equivalent to 2 Gm. whole fresh liver)	*6 Gm. fresh liver	*12 Gm. fresh liver
Ferrous Sulfate Exsiccated . . . 2.0 gr. (Approx. equivalent to 2.85 gr. ferrous sulfate)	*8.5 gr. ferrous sulfate	*17 gr. ferrous sulfate
Ascorbic Acid 50.0 mg.	150 mg.	300 mg.
Folic Acid 1.67 mg.	5 mg.	10 mg.

Liafon is supplied in bottles of 100 and 1,000

*Approximate equivalent

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new iron catalyst for improved hemogenesis

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LABORATORIES, INC., Pharmaceutical Manufacturers, Newark 7, N. J.

Molybdenum oxide combined with ferrous sulfate, ". . . is a true example of potentiation of the therapeutic action of iron . . ."* Mol-Iron, the only iron preparation containing this specially processed complex of molybdenized ferrous sulfate, offers:

1. Much more rapid establishment of normal hemoglobin levels,
2. Notably better gastro-intestinal tolerance, and—
3. Maximum economy in the treatment of iron-deficiency anemias.

Clinically proved, the *tablet* form of Mol-Iron is conveniently suited to treating hypochromic anemias of varied etiology in older children and adults.

NOW—White's Mol-Iron is also available in *liquid* form. Particularly adapted to treating hypochromic anemias in infancy and childhood, it may be administered wherever liquid iron medication is preferred.

Potency: Each *tablet* contains 195 mg. (3 gr.) of ferrous sulfate and 3 mg. (1/20 gr.) of molybdenum oxide in the form of a stable, specially-processed complex. One teaspoonful of White's Mol-Iron *Liquid* is equivalent in its content of active ingredients to one Mol-Iron tablet.

Available: *Tablets*—bottles of 100 and 1000, *Liquid*—bottles of 12 ounces.

When recovery lags in hypochromic anemia because of poor iron utilization or annoying gastro-intestinal side-effects, test the demonstrable superiority of Mol-Iron. Why not prescribe this *potentiated specific* for just such a stubborn case, today?

*Healy, J. C.: Hypochromic Anemia: Treatment with Molybdenum-Iron Complex, J. Lancet *66*:218 (July) 1946.

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Tablets
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MOLYBDENIZED FERROUS SULFATE

PHYSICAL MEDICINE (Continued)

patients to six or eight sessions of hyperpyrexia at 104° F. for four hours, induced by electromagnet. Improvement was marked in 22 per cent, moderate in 22 per cent, slight or none in 56 per cent; follow-up results were not reported. Concentrations of ascorbic acid in plasma were changed notably by induced hyperpyrexia. Typhoid vaccine reactions were as effective as prolonged artificial fever. Prolonged fever induced with typhoid accine given by intravenous drip was again described.

The value of home physical therapy by simple means (radiant heat, contract baths, and douches. wet packs, paraffin baths, hot tub baths. and others) was stressed.

Occupational therapy is concerned mainly with the restoration of joint motion and muscle strength; it provides the patient with something constructive or useful to do, thereby ridding him of a feeling of helplessness and dependency. Movements involving extension rather than flexion should be encouraged.

AIR-BORNE INFECTION — AIR STERILIZATION

R. J. V. Pulvertaft, O.B.E., M.D., F.R.C.P.
Professor of Clinical Pathology, Westminister Hospital School of Medicine

In THE BRITISH MEDICAL JOURNAL
No. 4526, Page 4526
October 4, 1947

We now approach a more vexed question, the sterilization of air by antiseptic mists and smokes by ultra-violet light. At the outset it must be stressed that both of these methods are effective only or at least mainly against droplets and droplet nuclei. This is often overlooked, for the greater part of the experimental work has been with organisms sprayed from fluid suspensions in the air.

The lamps may be used in many ways. For the sterilization of ward and living-rooms it is convenient for them to be above eye-level, and they must be mounted so that no rays are directed below this level.

The Americans have been using ultra-violet rays for air sterilization for many years. It is a standard equipment in many schools and hospitals. Wells calculates that is is equivalent to 500 turnovers of air per hour, compared with the 25 turnovers by the best ventilation. In groups of schools the incidence of susceptibility to measles in an epidemic was from 9 to 15.5% in irradiated schools. Similar results have been found with chicken-pox. Experimentally, rabbits have been protected against air-borne tuberculosis. In my opinion ultra-violet light is the simplest and most efficient technic of this kind, and has no objectionable features of the eyes and skin is not irradiated.

EARLY MANIFESTATIONS OF MULTIPLE SCLEROSIS

B. W. Lichenstein, M.D.

In THE AMERICAN PRACTITIONER
Vol. 2, Page 197
November, 1947

According to Lichenstein there is no agreement on either the cause or the cure of multiple sclerosis. For many years fever therapy with typhoid-paratyphoid vaccine and mechanically induced fever were in vogue. At a later date quinine sulfate was used rather extensively. Since the advent of vitamin B and particularly thiamine chloride, untold quantities have been poured into patients with multiple sclerosis. Of late the histamine and "dicumarol" treatments have become fashionable. In Lichenstein's opinion the acute attack with excessive fatigue should be treated with rest, eradication of foci of infection and adequate diet. The prognosis in multiple sclerosis is not as grave as many believe. Some persons have two or more mild attacks and never go on to development of the advanced form of the disease. Others continue to have recurrent attacks with severe involvement of the nervous system followed by permanent defects.

RUPTURED INTERVERTEBRAL DISCS IN THE LOWER LUMBAR REGIONS

R. Glen Spurling, M.D., and Everett G. Grantham, M.D., Louisville, Kentucky

In THE AMERICAN JOURNAL OF SURGERY
Vol. LXXV — Number 1, Page 140
January, 1948

In our experience the most effective measures are: (1) Complete rest on a hard flat bed until the acute pain has subsided. (2) If the sciatic pain is severe, traction upon the affected leg may be beneficial. (3) A well fitting low back brace made to the patient's own measurements is help-

(*Continued on page* 48)

The advice is always "SEE YOUR DOCTOR"

To an audience of over 23 million people, in LIFE and other national magazines, Parke, Davis & Co. presents the message shown below. This is the 211th advertisement in the campaign in behalf of the medical profession, published continuously since 1928.

A reproduction in full color will be sent on request. Write Parke, Davis & Company, Detroit 32, Mich.

Some things you should know about reducing your weight

No. 211 in a series of messages from Parke, Davis & Co. on the importance of prompt and proper medical care.



IT is an accepted medical fact that excess weight can impair your health and efficiency, and possibly shorten your life.

One person's proper weight may be quite different from another's, however—even though their height and age are approximately the same. A large-boned, muscular person, for instance, should weigh considerably more than a small-boned person of the same height and age.

How much you should weigh is something to leave up to your doctor. Only your doctor can accurately judge whether your weight is within normal limits, or whether a loss or gain in weight is medically advisable.

If your doctor tells you that you weigh more than you should, it's just good sense to do something about it under his supervision. *To undertake a weight-reducing program without proper medical guidance is a foolish, and often dangerous, thing to do.*

It would be pleasant if there were some simple pill which would automatically and safely reduce your weight with no effort on your part. Unfortunately, *no such remedy exists.* So-called "reducing pills," taken without a physician's advice, are usually valueless and may be dangerous.

One type of pill, for instance, will cause you to lose weight—but only for a day or two! Its action is to remove water from body tissues, thus lowering your weight. But as soon as the water is replaced, the extra pounds are back again.

Another thing to beware of, in an effort to lose weight, is any sort of faddist diet.

A liquid diet may often be just as fattening as a normal one. A diet which concentrates on a particular food, and excludes most other foods, may deprive you of nutritive elements essential to the maintenance of good health.

SEE YOUR DOCTOR. Let him decide whether you should lose weight, how much you should lose, and how quickly. Let him tell you how you can do it without starving yourself, without risking your health. He can recommend a well-balanced diet. He can advise you about exercise. If he thinks medication will be helpful in your case, follow his instructions about dosage *exactly*. His advice is the only advice you can trust in matters that concern your health.

Makers of medicines prescribed by physicians **PARKE, DAVIS & CO.** *Research and Manufacturing Laboratories, Detroit 32, Mich.*

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PHYSICAL MEDICINE (Continued)

ful once the patient becomes ambulatory.

Patients in their initial episode of pain should have prolonged conservative treatment. A large proportion of them will get well without surgery.

ELECTIVE CONVULSIVE THERAPY IN STAMMERING

Thelma V. Owen, M.D., and Marguerite G. Stemmermann, M.D.

In THE AMERICAN JOURNAL OF PSYCHIATRY

Vol. 104

December, 1947

1. To illustrate the value of the phuralistic approach to the problem of stammering a case is reported in detail in which psychotherapy, speech training, and electric convulsive therapy were utilized.

2. The dominant psychoneurotic traits were amenable to psychotherapy only after convulsive treatment released the patient's inner tension.

3. Electric convulsive therapy is recommended in the management of severe stammering to shorten the period of treatment and to induce a more suitable atmosphere for both psychotherapy and speech reeducation.

EARLY AMBULATION EVALUATED

Louis J. Regan, M.D.

In THE JOURNAL OF THE AMERICAN HOSPITAL ASSOCIATION

Volume 22, Page 37

January, 1948

The practice of early ambulation in the major hospitals of Los Angeles has practically doubled the number of patients cared for; it has permitted the hospitalization of thousands of persons who otherwise could not have been handled. The savings have been immeasurable — in pain and in lives.

The great dividend has been physical, mental and financial benefit to the thousands of patients whose stays in hospitals were fewer and whose convalescences were hastened.

Early ambulation means to cause to walk or move about early in relation to some event or time factor.

Contributors to the Benevolence Fund may Clip and use this form

DR. HAROLD M. CAMP, *Secretary,*
Illinois State Medical Society,
Monmouth, Illinois.

I would like to contribute $..... to the Medical Benevolence Fund of the Illinois State Medical Society.

My check is enclosed in the above amount.

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Make checks payable to: COMMITTEE ON MEDICAL BENEVOLENCE.



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Post-Infectious Recovery

Following recovery from severe infectious disease, acute nutritional deficiencies must be corrected promptly if maximum speed of recovery is to be attained. The nutrient imbalance which exists during this period usually involves not only members of the vitamin B complex, but also proteins as well.

The delicious food drink made by mixing Ovaltine with milk is a pleasant and effective means of increasing the intake of virtually all essential nutrients. Easily digested and of low curd tension, it does not impose an undue digestive burden, and is frequently acceptable when other foods are refused. Three glassfuls daily supply significant amounts of B complex and other vitamins including ascorbic acid, biologically adequate protein, readily digested fat and carbohydrate, and the important minerals copper, iron, and calcium. This dietary supplement is enjoyed by all patients, young and old, and is taken without difficulty in recommended amounts. Hence it might well be included routinely in the dietary of convalescence.

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Three servings daily of Ovaltine, each made of ½ oz. of Ovaltine and 8 oz. of whole milk,* provide:

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PROTEIN	32.1 Gm.	VITAMIN B_1	1.16 mg.
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CALCIUM	1.12 Gm.	VITAMIN C	30.0 mg.
PHOSPHORUS	0.94 Gm.	VITAMIN D	417 I.U.
IRON	12.0 mg.	COPPER	0.50 mg.

*Bosed on overage reported volues for milk.



CANCER ONE OF TOP KILLERS OF CHILDREN UNDER 14, SAYS DOCTOR

Earlier Diagnosis, Treatment Could Save Many Lives, Particularly In Group Under Five Years Of Age

A cancer control program for children is urgently needed, according to Harold W. Dargeon, M.D., New York, writing in the February 14 issue of *The Journal of the American Medical Association.*

"Only comparatively recently have cancer and related diseases received attention as an important child health problem," he points out. "In the last decade cancer, leukemia, and other tumors exceeded almost all common diseases among the causes of death in certain age groups during childhood."

Dr. Dargeon is from the Children's Tumor Registry and Pediatric Service of Memorial Hospital, Center for Cancer and Allied Diseases, New York. His article is the ninth of a series on cancer to be published by the American Medical Association in cooperation with the American Cancer Society. When complete, the series will be published in book form by the W. B. Saunders Company.

"Among the causes of childhood mortality in 1942 in the United States cancer and allied diseases stood tenth in the two year age group," Dr. Dargeon observes; "third, from three to 10 years of age, and sixth, from 10 to 14 years of age. In New York in the three year period 1942 to 1944 the deaths from neoplastic diseases during childhood exceeded those from all forms of tuberculosis. Wider recognition of this high mortality would stress the need for greater effort toward the establishment of early diagnosis of neoplasms in children.

"Parents often remark that treatment for their child was not sought earlier because they had supposed that cancer was always fatal in a child. The prognosis is often unfavorable, but a constantly hopeless attitude in the presence of cancer in a child is not justified. A particularly important age group in which reduction in the death rate might be realized is that from birth to five years of age. Not only do the largest number of deaths, by five year age groups in

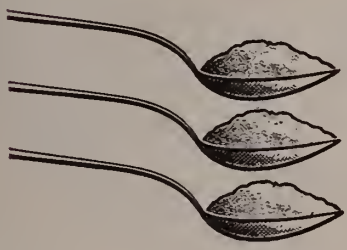
(*Continued on page* 52)



*Aperient

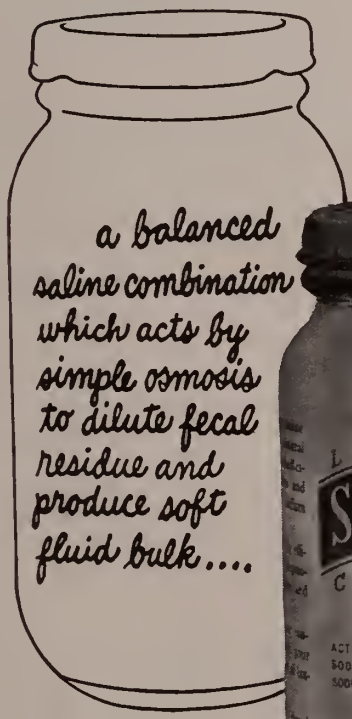


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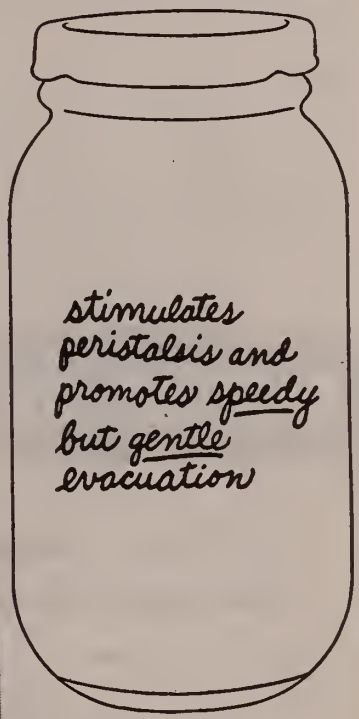
*Cathartic

*Average dose



a balanced saline combination which acts by simple osmosis to dilute fecal residue and produce soft fluid bulk....





stimulates peristalsis and promotes speedy but gentle evacuation

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children, occur in the age period from birth to five years of age, but also a large number of the curable types of cancer are found in the preschool child.

"Most types of tumors present in children are seldom observed after maturity, although they have been described in the adult. Studies of large series of cases indicate that there are six sites most frequently affected by cancer in children: (1) the bones; (2) the kidneys; (3) the eye and orbit; (4) the lymphatic and blood-forming organs; (5) the soft somatic [body] tissues, and (6) the nervous system.

"The need for collaboration in the study of tumors in children has been recognized by all those engaged in this field. The American Academy of Pediatrics has endorsed such a coordinated study as part of its national child health program, by the establishment of a Children's Tumor Registry. The combined experience of various clinics is required to evaluate results, incidence and diagnostic criteria, because the type of tumors observed in each hospital may vary considerably.

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Current statistical data on tuberculosis mortality rates are not an index of current infection and morbidity. Nor, in fact, are they a measure of the effectiveness of current control efforts. They are merely the expression of the relative condition or state of these factors at some time in the recent past. In similar fashion, we may assume that the tuberculosis death rate of the future will reflect the present universe of environmental control and human resistance and susceptibility. Francis J. Weber, M.D., Ed., Pub. Health Rep., Feb. 6, 1948. 1948.



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Book Reviews

ILLUSTRATIONS OF REGIONAL ANATOMY: E. B. Jamieson, M. D., Senior Demonstrator and Lecturer Emeritus, Anatomy Department, University, Edinburgh. Seven Sections. Seventh Edition. A Prospectus giving prices and full details can be obtained from any Medical Bookseller or direct from the Publishers. The Williams and Wilkins Company, Baltimore, 1947. Paper bound copies. Price $20.00.

The seventh edition of this work consists of seven separate volumes of colored anatomical illustrations. The books are compact and include: The central nervous system, head and neck, thorax, abdomen, pelvis, upper limb, and lower limb. Most of the illustrations have been drawn from dissected specimens, or models. No descriptive detail accompanies the illustrations, but the latter are clear, well labeled, and each anatomical part has a distinctive color. In the edition, there are numerous changes and corrections. This is a well done atlas of anatomy, with the exception that the illustrations in many instances fail to have a natural appearance.

J. W. F.

A TEXTBOOK OF PATHOLOGY: An Introduction to Medicine: By William Boyd, M.D., Dipl., Psych., M.R.C.P. (Edin.), F.R.C.P., London, LL.D., Sask., Professor of Pathology and Bacteriology of the University of Toronto. Fifth Edition (Published October, 1947) 1049 Pages, 500 Illustrations, 30 Plates in Color. Lea & Febiger, Washington Square, Philadelphia 6, Pa. Price $10.00.

Boyd's Pathology has been a standard text-book for sometime and the issuance of a fifth edition bears out its general acceptance. This edition has been thoroughly revised with many new sections, added new material, and re-written sections. There are about 30 new sections, including a variety of subjects, such as stasis, lipotropic factors in liver disease, hypertensive heart disease, cardiac infarction without coronary occlusion, temporal arteritis, chronic disseminated tuberculosis, renal anoxia, and many others of equal importance. New material has been added to cystic fibrosis of the pancreas, the pituitary-thryroid axis, allergy in pneumonia, folic acid, the anemias, poliomyelitis, burns, and numerous other subjects. There is considerable re-writing in carcinogenesis, silicosis and anthracosis; liver cirrhosis, hemolytic disease. The section on allergy has been re-written. Each chapter closes with references to additional reading. The illustrations are appropriate and clearly printed. This book is highly recommended.

J. W. F.

SEXUAL BEHAVIOR IN THE HUMAN MALE: Alfred C. Kinsey, Professor of Zoology, Indiana University, Wardell B. Pomeroy and Clyde E. Martin, Research Associates; 804 pages; 173 charts and 159 tables; W. B. Saunders Company, Philadelphia and London; 1948; Price $6.50.

This book is prepared following a nine year study of 12,000 sex histories and as a result of information obtained from 5,300 white males. A great deal of the information procured has been presented in the form of tables. Whether or not the data so accumulated would correspond with a nation wide cross section survey remains controversial.

The authors' investigation shows that a vast majority of men admit having premartial sex relations with women, and 70% of them with prostitutes. The percentage of these men whose histories were studied who admit some homosexual tendencies is 37%.

The book is divided into three parts, the first dealing with history and method, the second with factors affecting sexual outlet and the third, source of sexual outlet. The book will most likely be of more value to psychiatrists, psychologists, research workers and perhaps urologists, rather than to the general practitioner. It is most unfortunate that the book has been widely publicized through the press and no doubt many copies will fall into the hands of those for whom it is not primarily intended.

This is the first in a series of books to present problems in sexual behavior in the human male and female, and it is quite obvious that the authors have spent much time in arranging the book and developing

the charts and tables which constitute a considerable portion of the text.

DISEASES TRANSMITTED FROM ANIMALS TO MAN. Thomas G. Hull, Ph.D., Director, the Scientific Exhibit, American Medical Association. Third Edition, 1947. 571 pages. Charles C. Thomas, Springfield. $10.50.

This is the third edition of this encyclopaedic textbook about diseases transmitted from animals to man. In it an imposing list of fourteen consultants discuss systematically 91 important diseases of interest to physician, veterinarian, research worker and health official. First published in 1930, the latest edition has been brought completely up to date with addition of material obtained during the recent war, including tsutsugamushi fever, Q fever, jungle yellow fever, lymphocytic choriomeningitis and milkers nodules. New chapters have been addd on listerellosis and Haverhill fever. The old chapters have been rewritten or markedly revised. There is a full discussion of each disease, with emphasis on epidemiology and prevention.

The book fills a definite gap in medical teaching by emphasizing diseases of interest both to physician and veterinarian. It is well written, the plates are well reproduced and the typography and printing are excellent. It is recommended for physician, veterinarian and health officer.

J.C.S.

BLOOD DERIVATIVES AND SUBSTITUTES: By Charles Stanley White, M.D., Sc.D., Former Professor of Surgery, George Washington University School of Medicine; Chief of Surgery, Doctors Hospital; Consultant to Grafield Hospital, Providence Hospital, and Columbia Hospital, Washington, D.C., and to U.S. Naval Hospital, Bethesda, Maryland; and Jacob Joseph Weinstein, B.S., M.D., Associate in Surgery, School of Medicine, George Washington University; Associate in Surgery at Galliger Municipal Hospital and George Washington University Hospital, Washington, D. C., Baltimore. The Williams and Wilkins Company, 1947. Pages 484. Price $7.50.

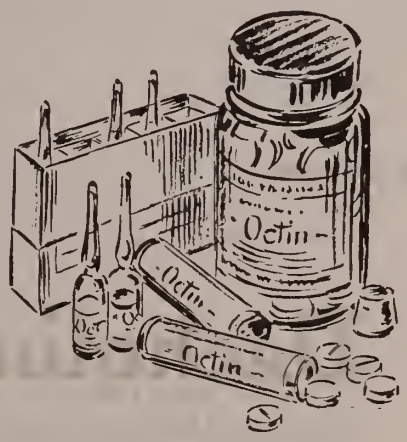
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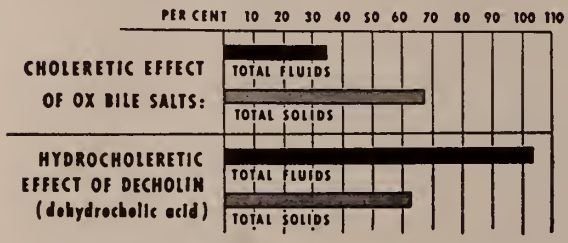
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J.W.F.

Books Received

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

HEADACHE AND OTHER HEAD PAIN: By Harold G. Wolff, M.D., Professor of Medicine, (Neurology) and Associate Professor of Psychiatry, Cornell University Medical College, Attending Physician, New York Hospital, New York: Oxford University Press, New York, New York; 642 pages: Price $12.00.

THE ACUTE BACTERIAL DISEASES: Their Diagnosis and Treatment: By Harry F. Dowling, M.D., F.A.C.P., Clinical Professor of Medicine, George Washington University; Chief, George Washington Medical Division, Gallinger Municipal Hospital. With the Collaboration of Lewis K. Sweet, M.D., Chief Medical Officer in Pediatrics and Infectious Diseases, Gallinger Municipal Hospital; Adjunct Clinical Professor of Pediatrics, George Washington and Georgetown Universities; and Harold L. Hirsh, M.D., Assistant Professor of Medicine, Georgetown University; Director of the Bacteriology and Immunology Laboratory, Georgetown University Hospital. 465 pages with 55 figures. Philadelphia and London: W. B. Saunders Company, 1948. Price $6.50.

MODERN TREATMENT OF PEPTIC ULCER: Asher Winkelstein, M.D., B.S., Associate physician for gastroenterology and physician in charge of the gastrointestinal clinic, the Mount Sinai Hospital, New York City; Assistant Professor of Clinical Medicine (Gastro-Enterology), Columbia University, New York City: Oxford University Press, New York: 205 pages; Price $4.00.

JUNIOR SPEAKS UP: Irving R. Abrams, B.S., M.D., Associate Attending Physician, Cook County Children's Hospital: Clinic Physician, Sarah Morris Children's Hospital, Chicago: Licentiate of the American Board of Pediatrics: The MacMillan Company, New York; 164 pages; Price $2.50.

SKELETAL TUBERCULOSIS: Vicente Sanchis-olmos, M.D., Assistant Director of the Institute Nacional de Reeducation de Invalidos de Carabanchel Bajo (Madrid, Spain). Translated from the Spanish by John G. Kuhns, M.D., Chief of the Orthopedic and Surgical Services, Robert Brigham Hospital; Fore-

word by Frank R. Ober, M.D., Clinical Professor of Orthopedic Surgery, Harvard Medical School; The Williams & Wilkins Company, Baltimore; 261 pages; Price $5.00.

BRIEF PSYCHOTHERAPY: A handbook for physicians on the clinical aspects of neuroses; Bertrand S. Frohman, M.D. With the collaboration of Evelyn P. Frohman; foreword by Walter C. Alvarez, M.D.; Lea & Febiger, Philadelphia; 265 pages; Price $4.00.

SYMPOSIUM ON MEDICOLEGAL PROBLEMS: Under the co-sponsorship of the Institute of Medicine of Chicago and the Chicago Bar Association; Edited by Samuel A. Levinson, M.D., Ph.D., University of Illinois College of Medicine for The Committee of the Institute of Medicine and The Chicago Bar Association; J. B. Lippincott Company, Philadelphia, London, Montreal; 255 pages; Price $5.00.

SEX POWER IN MARRIAGE: With case histories; a realistic analysis concerning the sensual and emotional problems of marriage; Edwin W. Hirsch, B.S., M.D., formerly on urological faculty, College of Medicine, University of Illinois; 218 pages; Price $3.00.

MAN-WEATHER-SUN: William F. Petersen, M.D., Chicago, Charles C. Thomas, Publisher, Springfield, Illinois; 223 pages, illustrated. Price $3.00.

TREATMENT IN GENERAL PRACTICE: (Sixth Edition) Harry Beckman, M.D., Professor of Pharmacology, Marquette University School of Medicine, Milwaukee, Wisconsin. W. B. Saunders Company, Philadelphia & London; 1129 pages. Price $11.50.

BERGEY'S MANUAL OF DETERMINATIVE BACTERIOLOGY: Robert S. Breed, New York State Experiment Station (Cornell University), Geneva, New York, E. G. D. Murray, McGill University, Montreal, Province, Quebec, Canada; A. Parker Hitchens, University of Pennsylvania, Philadelphia, Pennsylvania; Sixth Edition; The Williams & Wilkins Company, Baltimore; 1529 pages; Price $15.00.

DISABILITY EVALUATION: Principles of Treatment of Compensable Injuries; Earl D. McBride, B.S., M.D., F.A.C.S., Diplomatic American Board Orthopedic Surgery; Assistant Professor in Orthopedic Surgery, University of Oklahoma, School of Medicine, Attending orthopedic surgeon to St. Anthony's Hospital; Associate orthopedic surgeon to Wesley Hospital; Visiting surgeon to W. J. Bryan School for Crippled Children; Chief of Staff to Bone and Joint Hospital, Oklahoma City, Oklahoma; over 400 illustrations; Fourth Edition revised; J. B. Lippincott Company, Philadelphia, London, Montreal; 667 pages; Price $12.00.

TREATMENT BY DIET: Clifford J. Barborka, B.S., M.S., M.D., D.Sc., F.A.C.P., Assistant Professor of Medicine, Northwestern University Medical School, Chicago, Attending Physician, Passavant Memorial Hospital, Consultant in Gastro-enterology and Gastroscopy, Diagnostic Center, Hines Veterans Hospital; Formerly consulting Physician, The Mayo Clinic; Fifth Edition; 14 plates, including 13 in color; J. B. Lippincott Company, Philadelphia, London, Montreal; 784 pages; Price $10.00.

(*Continued on page* 59)

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BOOKS RECEIVED (Continued)

HERNIA: Anatomy, Etiology, Symptoms, Diagnosis, Differential Diagnosis, Prognosis, and Treatment; By Leigh F. Watson, M.D., F.I.C.S., Los Angeles, Certified by the International Board of Surgery; Formerly Assistant Professor of Surgery, University of Oklahoma Medical School, Oklahoma City; Third Edition, enlarged and thoroughly revised; with 323 illustrations by Helen Lorraine, Willard C. Shepard and Ralph Sweet; The C. V. Mosby Company, St. Louis; 732 pages; $13.50.

THE RH FACTOR in the Clinic and the Laboratory; Joseph M. Hill, M.D., and William Dameshek, M.D., Editors; Grune and Stratton, New York; 192 pages; Price $4.25.

PSYCHOLOGICAL ATLAS: David Katz, University of Stockholm; 400 illustrations; Philosophical Library, New York; 142 pages; Price $5.00.

CLINICAL STUDIES IN PSYCHOPATHOLOGY: A Contribution to the Aetiology of Neurotic Illness: By Henry V. Dicks, M.A., M.D., (Cantab), F.R.C.P., (London) Nuffield Professor of Psychiatry in the University of Leeds, Late Assistant Medical Director, The Tavistock Clinic, London Sometime Foundation Scholar of St. John's College, Cambridge; The Williams & Wilkins Company, Baltimore, 1947; Price $4.50; 238 pages.

PSYCHOBIOLOGY AND PSYCHIATRY: A Textbook of Normal and Abnormal Human Behavior: By Wendell Muncie, M.D., Practicing psychiatrist; Chairman, Medical Advisory Board, Seton Institute, Baltimore, Md.; Associate Professor of Psychiatry, Johns Hopkins University; Consultant in Psychiatry, U. S. V. A.: Second Edition: With 70 Illustrations: The C. V. Mosby Company, St. Louis, 1948; Price $9.00: 620 pages.

THE METABOLIC BRAIN DISEASES AND THEIR TREATMENT: In Military and Civilian Practice: By G. Tayleur Stockings, M.B., B.S., D.P.M., Late Deputy Medical Superintendent, City Mental Hospital, Birmingham, Late Senior Assistant Medical Officer, Warlingham Park Hospital. Late Major, Specialist in Psychological Medicine, R.A.M.C., Ernest Hart Memorial Scholar, British Medical Association. The Williams & Wilkins Company, Baltimore, 1947; 262 pages.

PATHOLOGICAL HISTOLOGY: By Robertson F. Ogilvie, M.D., F.R.C.P. (Edin.), F.R.S.E., Lecturer in Pathology and Assistant in Forensic Medicine, University of Edinburgh, Senior Pathologist, Royal Infirmary, Edinburgh, Pathologist to the Leith and Deaconess Hospitals, Edinburgh, Examiner in Pathology and Forensic Medicine for the Triple Qualification: Foreword by A. Murray Drennan, M.D., F.R.C.P. (Edin.), F.R.S.E., Professor of Pathology, University of Edinburgh: Third Edition With 260 Photomicrographs in Colour: The Williams and Wilkins Company, Baltimore, 1947; $10.00: 459 pages.

HEART: A Physiologic and Clinical Study of Cardio-Vascular Diseases; By Aldo A. Luisada, M.D., In-

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structor in Physiology and Pharmacology, Tufts College Medical School, Lecturer in Medicine; Lecturer, Postgraduate Division, Tufts College Medical School, Associate in Medicine, Beth Israel Hospital, Boston, Mass. Former Professor of Medicine, Ferrara, Italy; With a Foreword by Herrman L. Blumgart, Physician-in-Chief, Beth Israel Hospital, Professor of Medicine, Harvard Medical School; The Williams & Wilkins Company, Baltimore, 1947: Price $10.00; 653 pages.

CLINICAL DIAGNOSIS BY LABORATORY METHODS: A Working Manual of Clinical Pathology: By James Campbell Todd, Ph.B., M.D., Late Professor of Clinical Pathology, University of Colorado School of Medicine; Arthur Hawley Sanford, A.M., M.D., Professor of Clinical Pathology, Mayo Foundation, University of Minnesota; Senior Consultant, Division of Clinical Laboratories, The Mayo Clinic; with the Collaboration of George Giles Stilwell, A.B., M.D., Division of Clinical Laboratories, The Mayo Clinic; Eleventh Edition. 954 pages, with 397 figures. Philadelphia and London: W. B. Saunders Company, 1948. Price $7.50.

THE BATTLE OF THE CONSCIENCE: A Psychiatric Study of the Inner Working of the Conscience: By Edmund Bergler, M.D., Washington Institute of Medicine, Washington, D. C. Price $3.75. 296 pages.

PRACTICAL METHODS IN BIOCHEMISTRY: By Frederick C. Koch, Frank P. Hixon, Distinguished Service Professor Emeritus of Biochemistry, University of Chicago. Director of Biochemical Research, and Martin E. Hanke, Associate Professor of Biochemistry, University of Chicago: Fifth Edition: A William Wood Book: The Williams & Wilkins Company, Baltimore, 1948; Price $3.00: 419 pages.

TEXTBOOK OF GYNECOLOGY: By Emil Novak, M.D., F.A.C.S., Assistant Professor of Gynecology, the Johns Hopkins Medical School; Gynecologist, Bon Secours and St. Agnes Hospitals, Baltimore: Third Edition: The Williams & Wilkins Company, 1948, Baltimore: 742 pages: $8.00.

YOU AND YOUR DOCTOR: A Frank Discussion of Group Medical Practice and Other Modern Trends in American Medicine: By Benjamin F. Miller, M.D., Clinical Professor of Medicine, George Washington Medical School; Research Associate in Medicine, National Research Council; formerly associated with the University of Chicago Clinics and the United States Public Health Service: McGraw-Hill Book Company, Inc., New York & Toronto: 183 pages: $2.75.

ENCYCLOPEDIA OF MEDICAL SOURCES: By Emerson Crosby Kelly, M.D., F.A.C.S., Associate Professor of Surgery, Albany Medical College, Attending Surgeon, Albany Hospital, Editor, Medical Classics: The Williams & Wilkins Company, Baltimore, 1948; 476 pages; Price $7.50

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MEDICAL SCHOOL TO TELEVISE DURING FIVE-DAY AMA CONVENTION

The Northwestern University medical school will employ television to bring to the estimated 18,000 physicians and surgeons attending the American Medical Association meeting in Chicago, June 21 through 25, five days of programs showing both surgical procedures and clinical demonstrations. It will be the first time in Chicago, and also the first time anywhere on such a large scale, that video has played so major a role in medical education.

A committee composed of Drs. Walter Carroll, Stuart Abel, and Henry E. Wilson, Jr., all of Northwestern's medical faculty, the first two from the staff of Passavant Memorial Hospital and the latter from Wesley Memorial Hospital, both Northwestern affiliates, announced that the week-long television program is the first of such magnitude utilizing video methods in medical education at the convention level.

Dr. Carroll said that among the surgical procedures to be televised will be obstetrical and gynecological procedures, including a Caesarian section; the "blue baby" operation; early skin grafting in severe burns, gastric resection; hand surgery; and chest surgery. In addition, the video camera will reproduce a wide range of clinical material in the fields of internal medicine, orthopedics, cancer, dermatology, endocrinology, and neurology.

A particularly significant clinical demonstration concerning peripheral nerve injuries will be conducted by Dr. Loyal Davis, chairman of the department of surgery at Northwestern, and Dr. Lewis J. Pollock, chairman of the school's department of nervous and mental diseases. Co-operative patients will be asked to appear in many of the clinical demonstrations.

It is planned to broadcast the medical programs from 9 a. m. to noon, and from 1 p. m. to 4 p. m. on each of the five days. The surgery will take place in two operating rooms of Passavant, and the clinical demonstrations in adjoining classrooms. The transmitter will be situated atop the Montgomery Ward Memorial, one of Northwestern's Chicago campus tower buildings which houses the schools of medicine

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TELEVISION (Continued)

and dentistry. Both small and large receiving sets will be situated in convention rooms both in the Sheraton Hotel and on Navy Pier, and as many as needed in classrooms of the medical school.

Approximately 1,500 observers may witness a procedure simultaneously, Dr. Carroll explained: 600 in the Sheraton, 500 on the Pier, and 400 in the medical school. It is estimated that about 25 doctors may see a program before each of the smaller screens, while the larger will accommodate about 50.

Two cameras will be employed in each operating room, one for panorama purposes, and the other for close focus on the surgical area. A control panel will be located centrally on the Passavant surgical amphitheater floor, allowing the surgeon to signal that he wishes to interrupt the narrator's description and provide comment of his own as he operates. Correlated medical presentations will be given both before and after the surgical procedures.

The programs have been planned to bring to the visiting physicians and surgeons, not only the latest advances in clinical and surgical procedures, but also the common medical problems. Two distinct advantages, according to Dr. Carrol, will lie in the large number of observers who may be served through the video set-up, and in the time saved in demonstrating each process. He explained that only essential features of the procedure under discussion need be televised. When feasible, the doctors may be spared the necessity of sitting through the surgical periods during which the incision is made and closed.

A television screen measuring eight by ten feet now is being manufactured, and has been promised to Northwestern for the convention period if it is completed by that time. This screen would accommodate an additional audience numbering in the hundreds.

Engineers of the Radio Corporation of America will install the equipment. Technicians who will man the cameras are experts who already have had similar medical experience.

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CALIFORNIA DOCTOR REPORTS IMPROVED VACCINE FOR UNDULANT FEVER

Improved vaccine in the treatment of undulant fever, or brucellosis, is proposed by Dr. Joseph Griggs, of Claremont, Calif., in the April 3 issue of The Journal of the American Medical Association.

Treating 300 patients for a 10-year period in California, Dr. Griggs reports that the usual methods of vaccine therapy were disappointing but a new way of using vaccine resulted in improvement of 85 to 90 per cent of all cases.

When he first began his research, Dr. Griggs used commercial vaccines administered in doses recommended in the folders which accompanied the products.

The objective of such treatment was a kind of shock therapy, designed "to give the patient a fairly severe local and general reaction."

"Sometimes," Dr. Griggs states, "the results were gratifying and successful. More often, the results were short lived or quite inconclusive."

From this early experience, Dr. Griggs concluded that the use of the commercial, heat-

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MENTAL patients have every comfort that their home affords.

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UNDULANT FEVER (Continued)

killed vaccines in the treatment of undulant fever was inadvisable because, of the many patients who did benefit from the therapy, many relapsed later and most objected to the discomfort and disability of the condition.

The next logical step, according to Dr. Griggs, was to decrease the size of doses of vaccine in the hope of avoiding excessive reactions.

In addition, the serum was diluted with a salt solution and the intervals between injections were adjusted to the patient's needs.

In the study carried out on the 400 patients, it was found that 81 per cent had adequate or complete relief of pain, and "this figure would be increased to 86 per cent of the group of patients who received methadon for labor pains were excluded, since the drug has proved to be ineffective in this type of pain."

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The ILLINOIS Medical Journal

VOL. 93 NO. 6

June, 1948

The President's Address

Psoriasis,
With Special Reference to
Etiology and Treatment

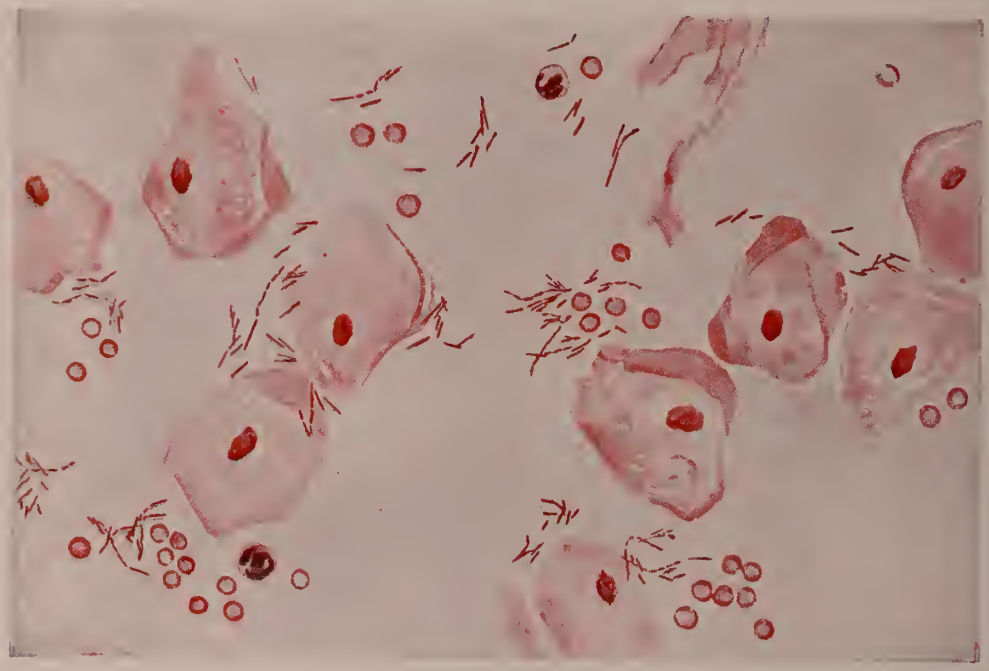
. . . . and other Original Articles

(See page 33 for complete Table of Contents)

OFFICIAL JOURNAL OF THE ILLINOIS STATE MEDICAL SOCIETY

pH (3.8-4.4)

for optimal resistance to vaginal infection



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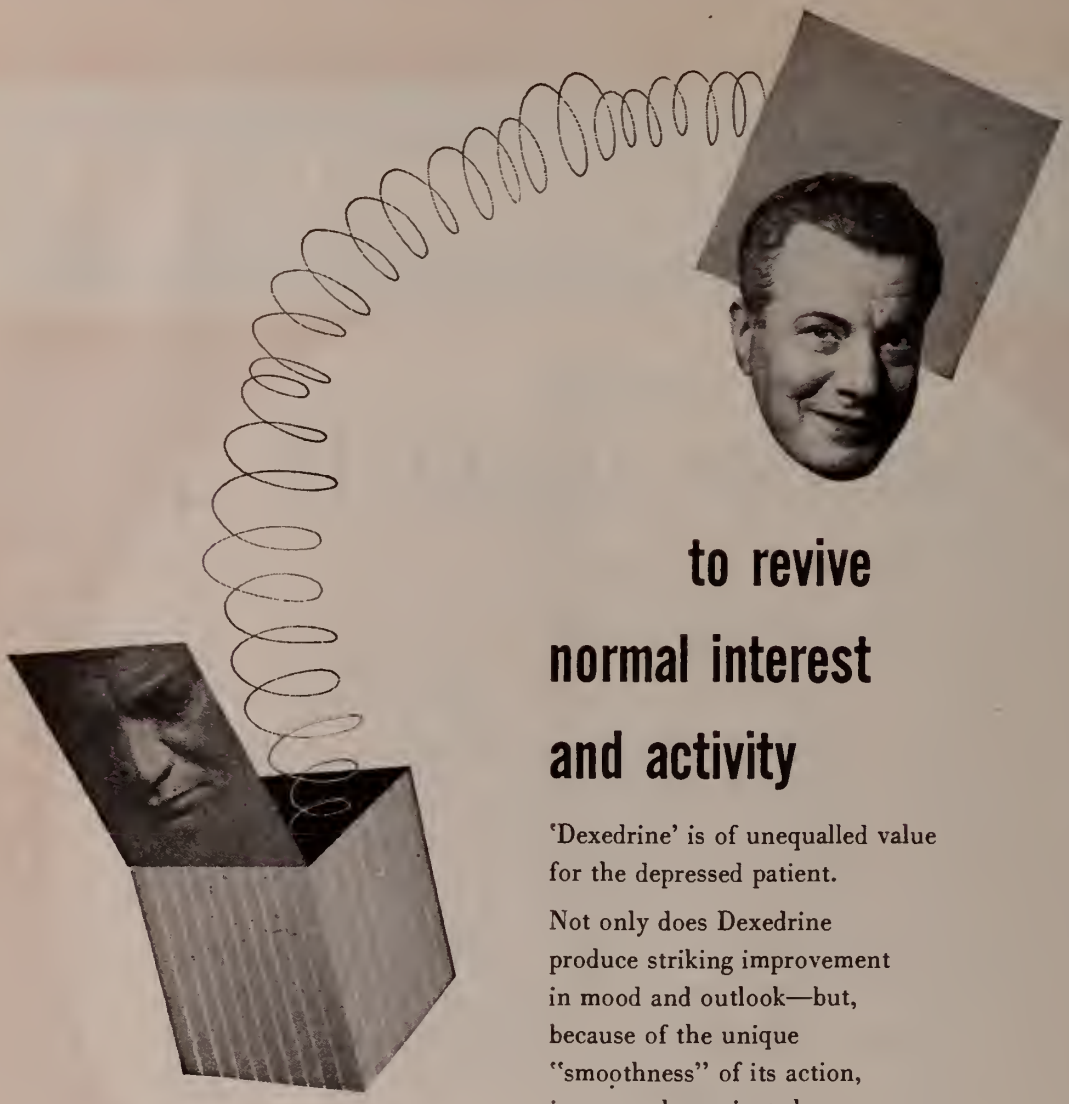
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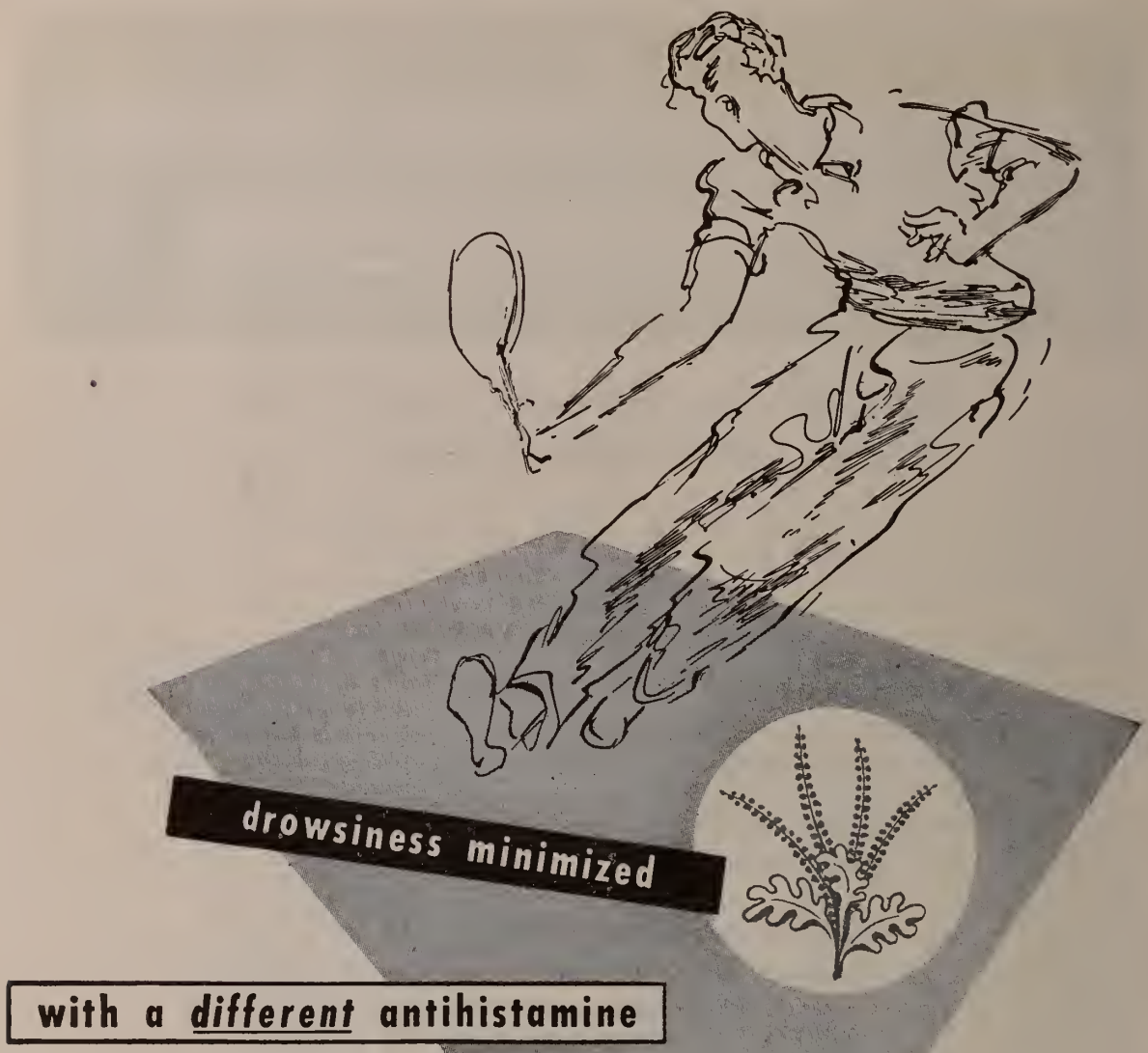
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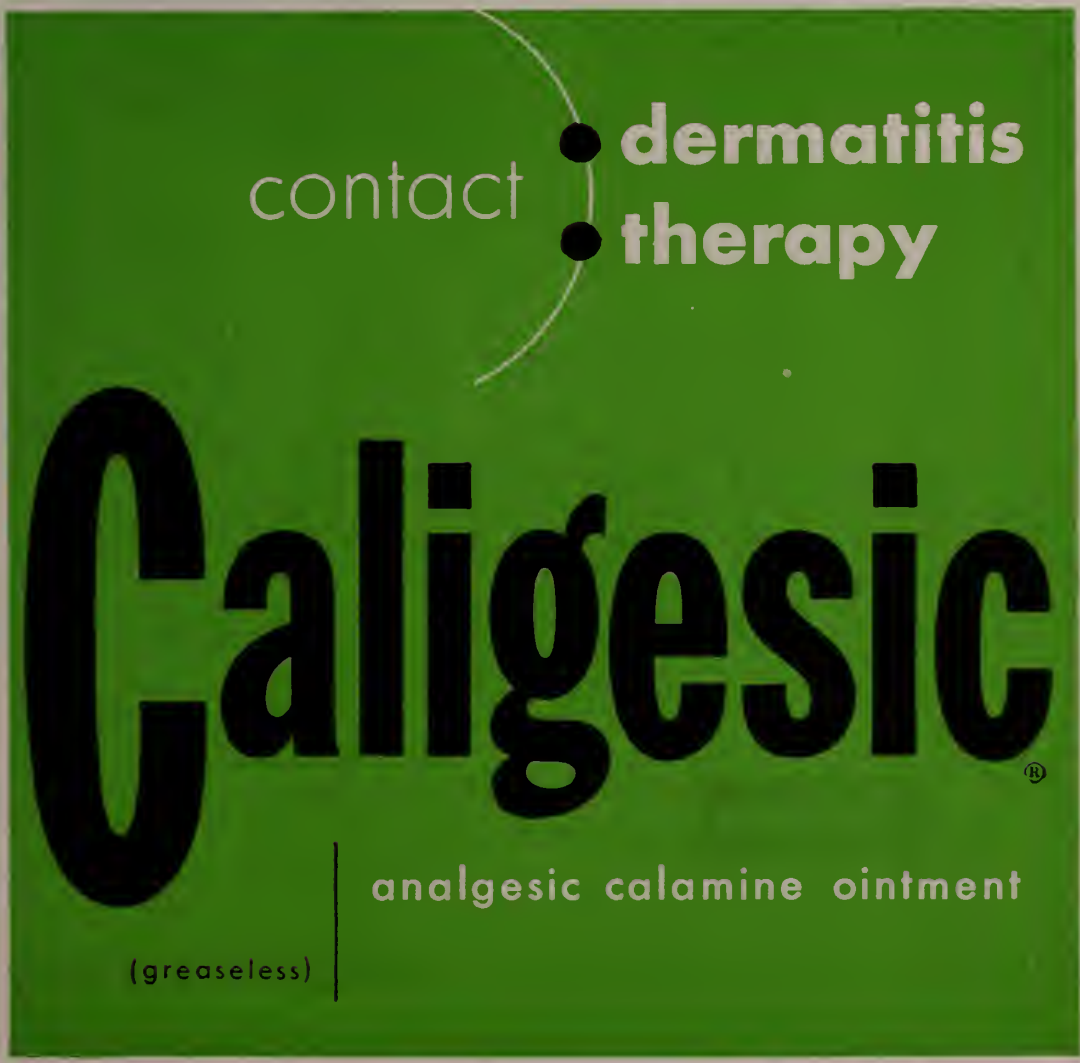
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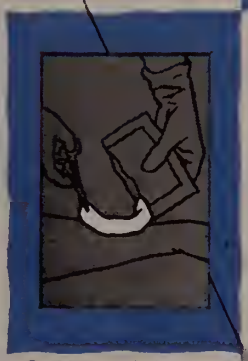
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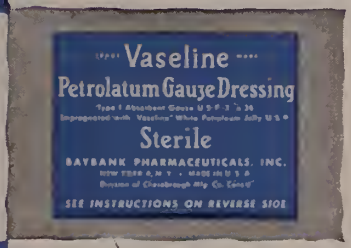
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In a recent controlled study [1] of 1,573 obstetrical patients, the incidence of genital tract infections was reduced from 5.3 per cent to 2.3 per cent when penicillin vaginal suppositories were used. *A decline of 56.6 per cent!*

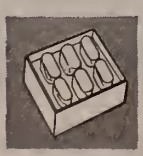
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1. Pierce, R. R.: Am. J. Obst. & Gynec. vol. 55 (Feb.) 1948.

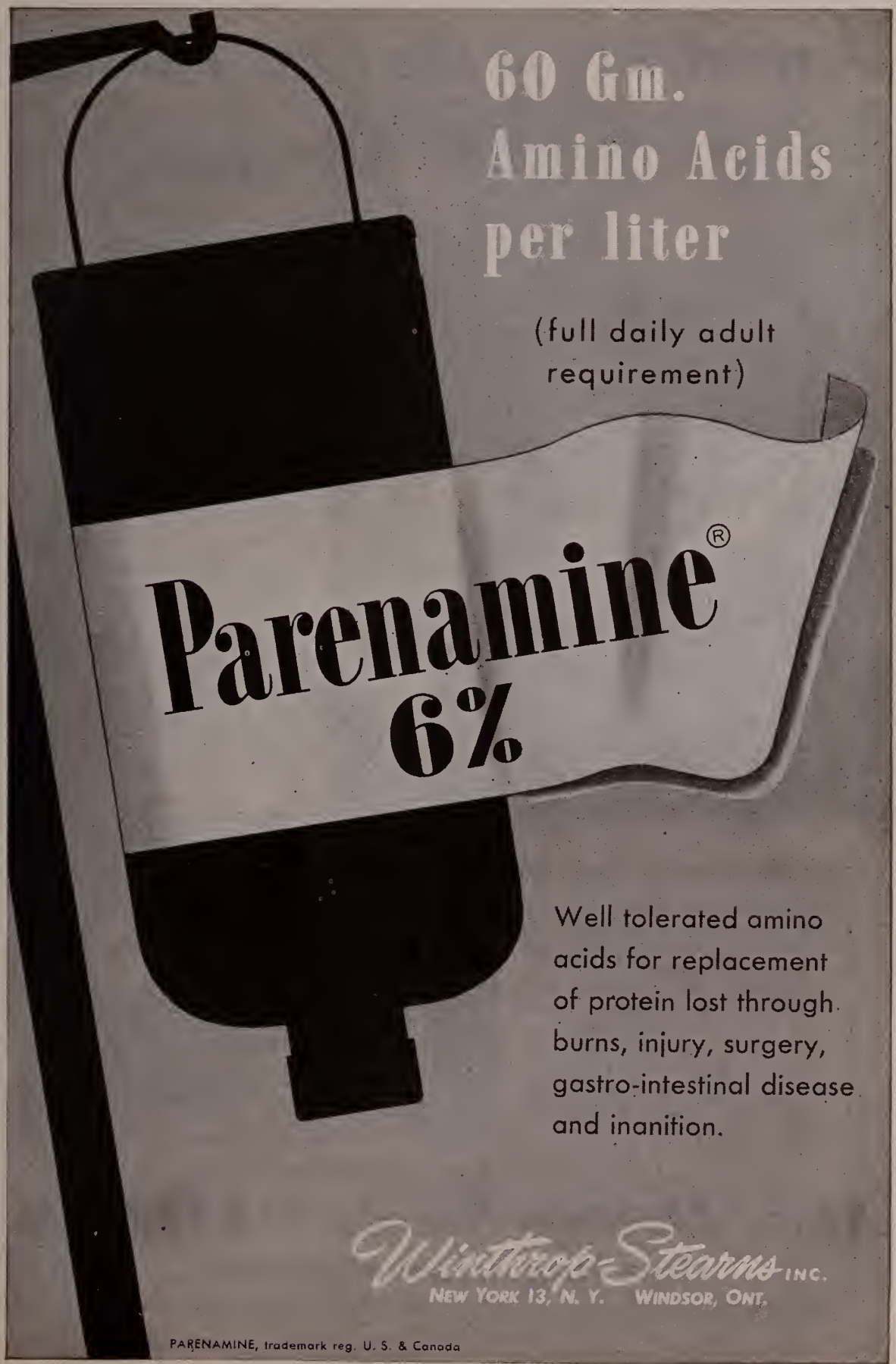
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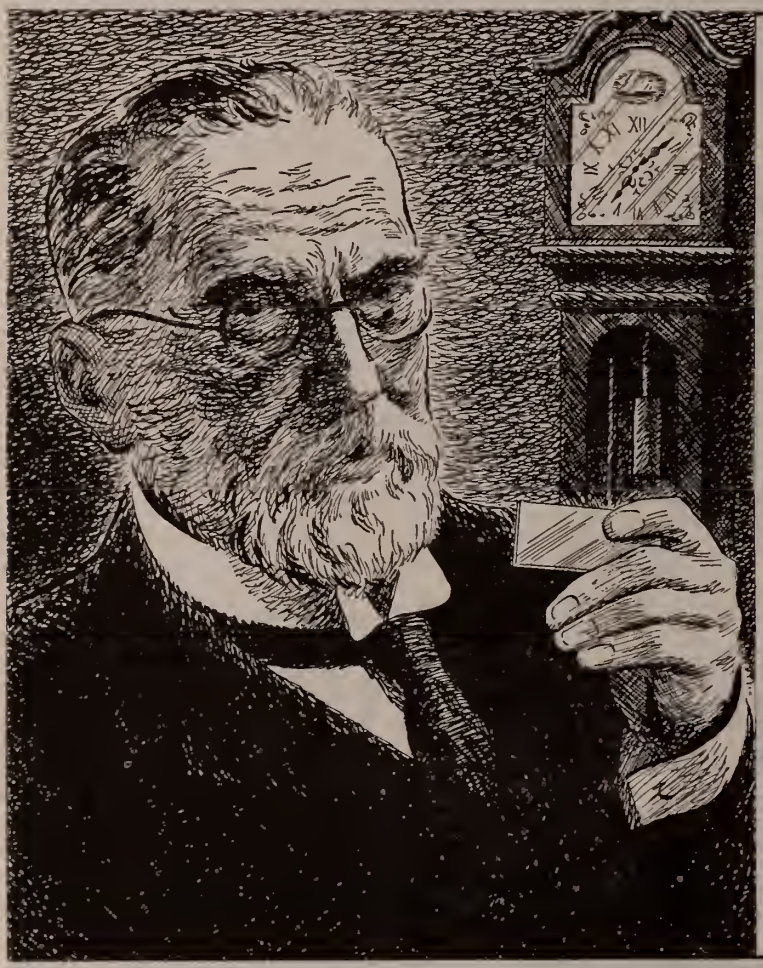
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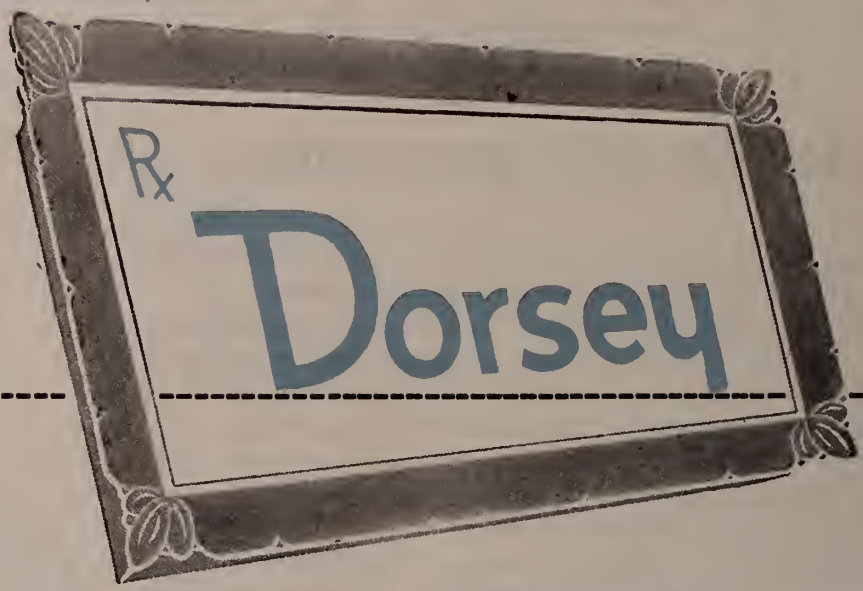
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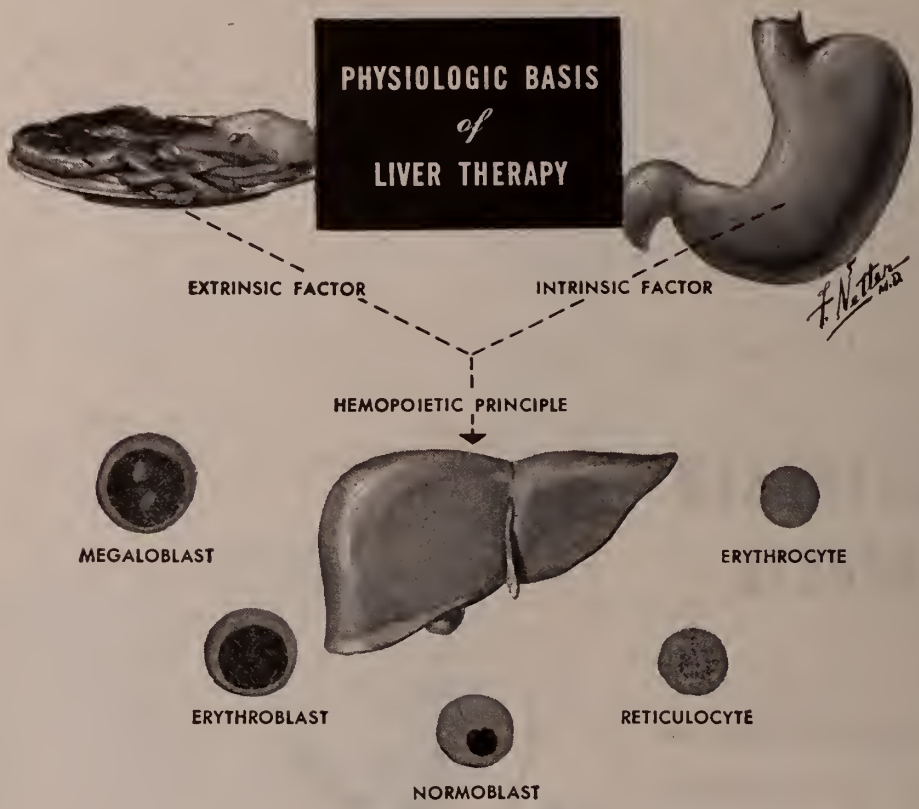
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1. Lisser, H.: Calif. & West. Med., 64: 177, 1946.

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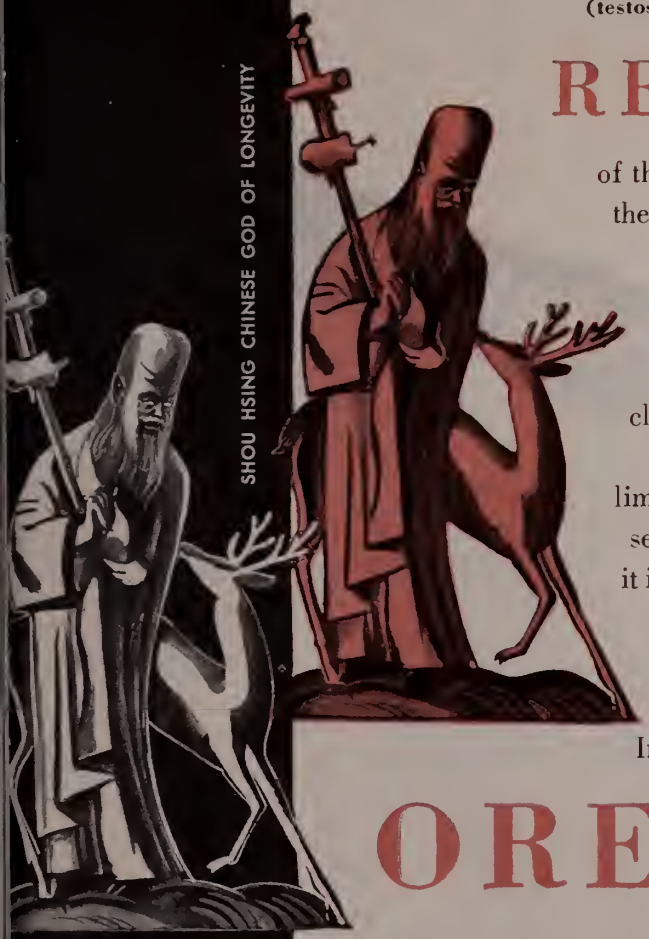
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Bibliography: (1) McCullagh, E. P., and McGurl, F. J.: Endocrinology **26**:377, 1940. (2) Thompson, W. O., and Heckel, N. J.: J.A.M.A. **113**:2124, 1939. (3) Goldzieher, M. A.: Geriatrics **1**:226, 1946.

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Because sunshine is not available everywhere at all times in antirachitic quantities and because optimal development after infancy requires adequate vitamins, preventive medicine dictates vitamin supplementation of the diet of most growing children.

VITAMINS

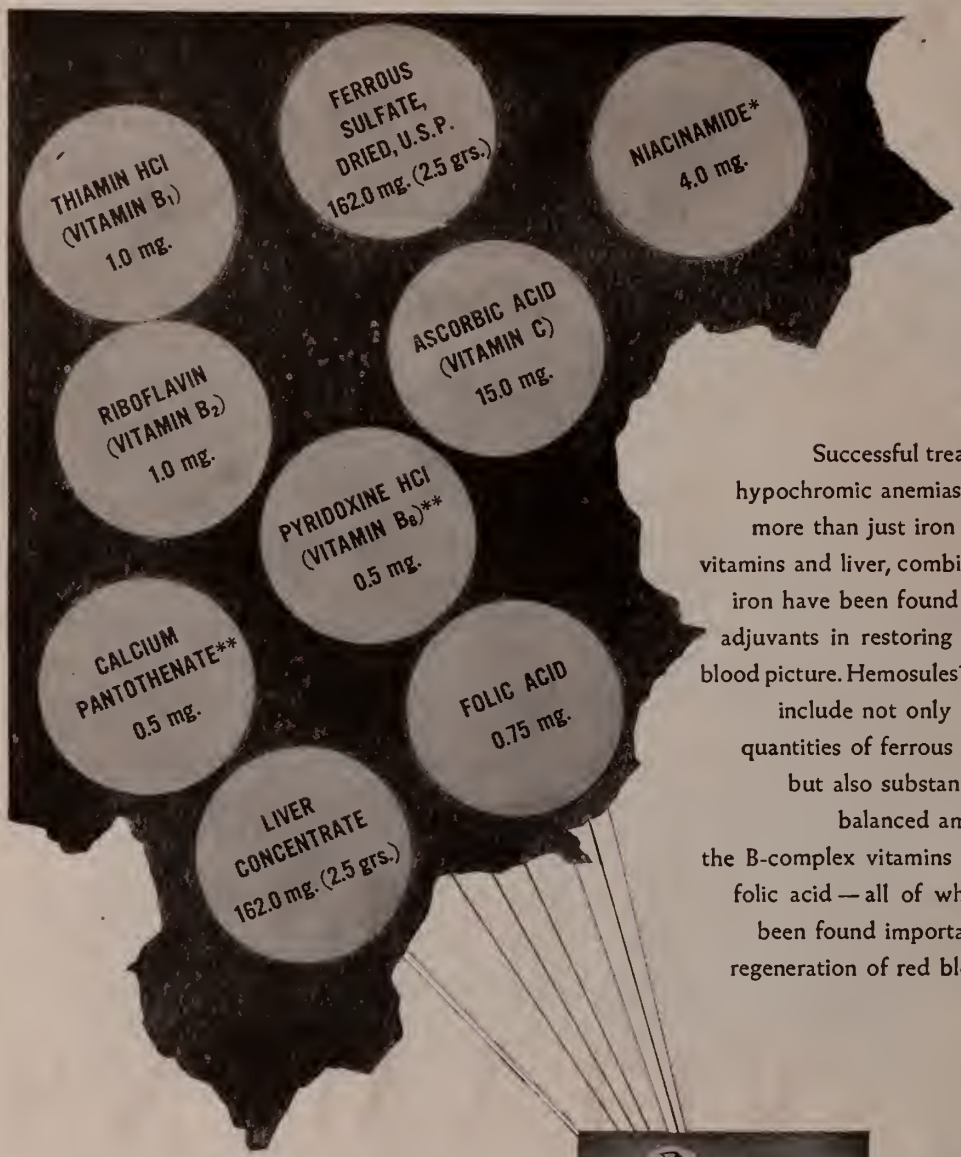
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(1) Florida Board of Health: Florida Health Notes 37: May 1945.
(2) May, E. W.: Arch. Pediat. 56:274 (May) 1939

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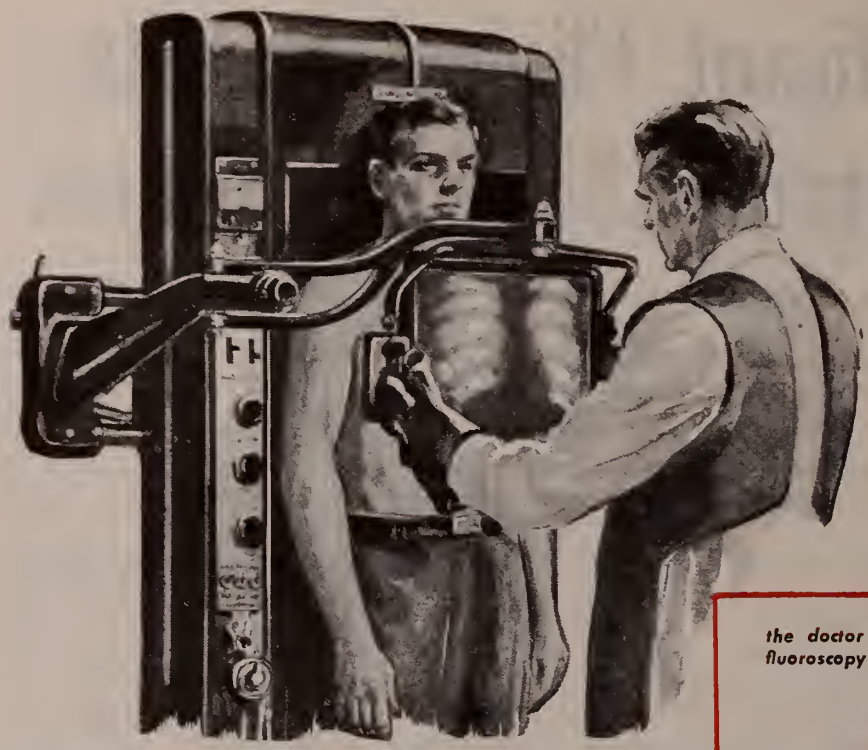
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the doctor here is doing vertical fluoroscopy with the "Comet"

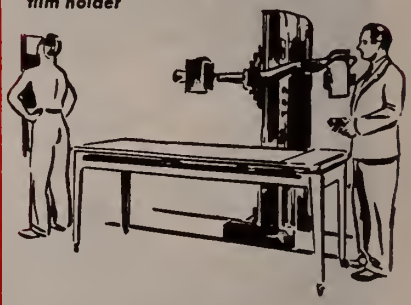
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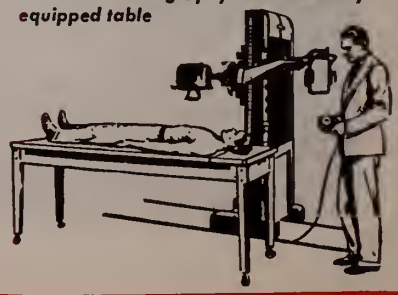
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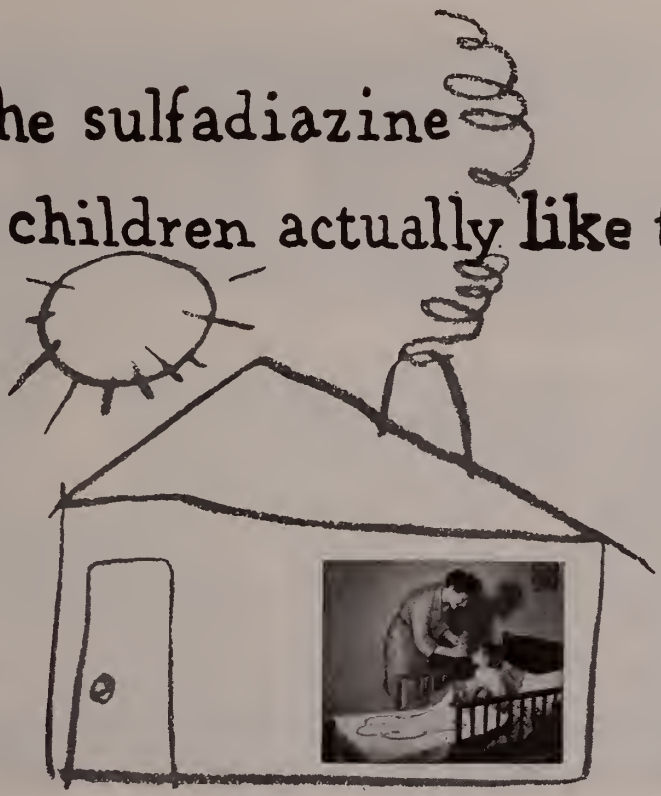
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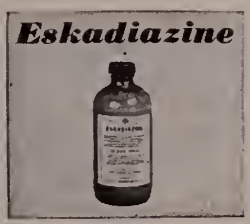
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**Am. J. M. Sc. 210:141, 1945*

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Leucine*	10.6
Lysine*	8.2
Methionine*	3.0
Phenylalanine*	5.1
Threonine*	4.4
DL-Tryptophane	1.0
Valine*	8.1
Other amino acids (approx.)	42% by difference
Total Nitrogen‡	13.4
a-Amino N‡†	10.0
% a-Amino N of Total N‡	75.0
Ash—on ignition	1.0
Moisture	1-2.0
NaCl.....less than	0.5

*By Microbioassay
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†Nitrous Acid Method (Van Slyke)

[1]"Modified Protein Hydrolysate" is the generic name given to this type of amino-acid preparation. (See REPORT OF THE COUNCIL, J.A.M.A. 136:692-693, March 6, 1948)

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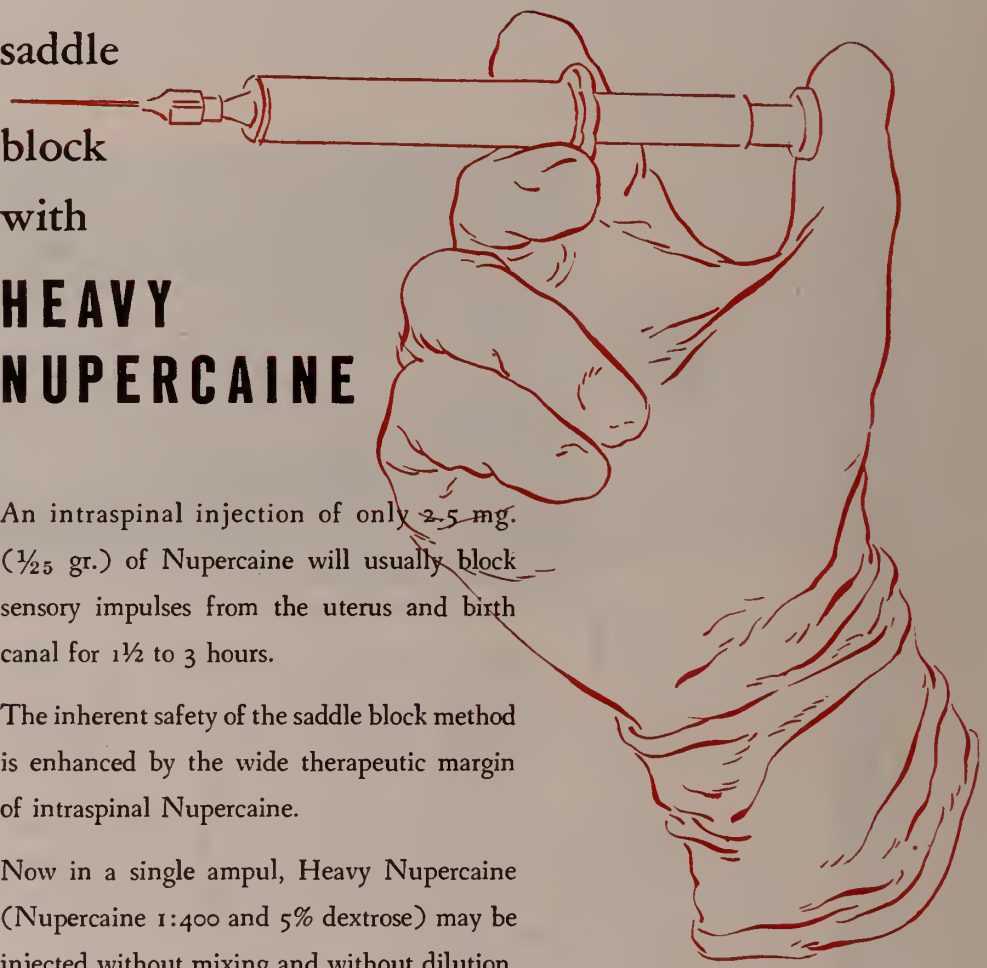
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†Human Fertility 10: 25 (Mar.) 1945.

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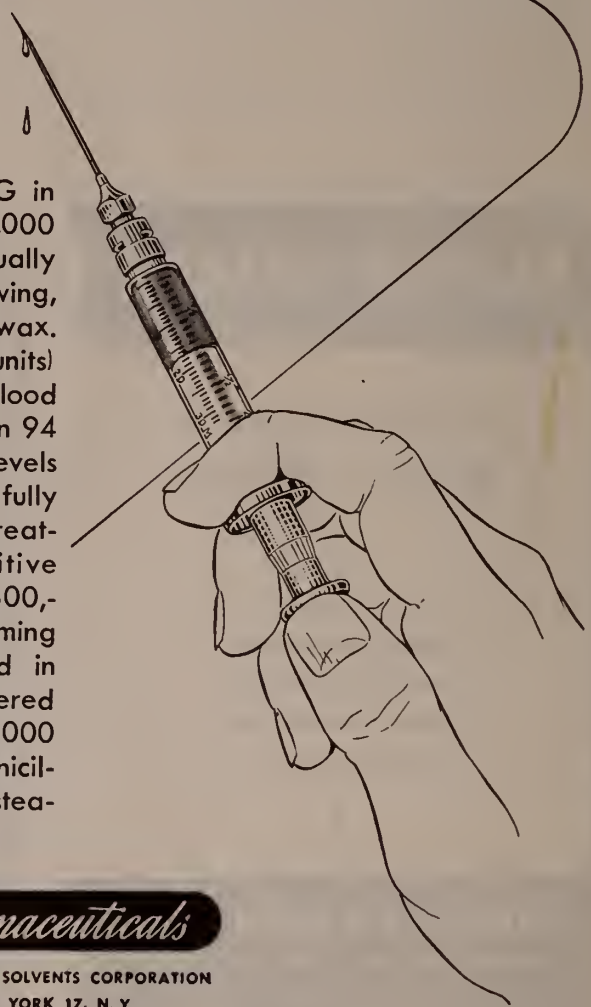
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"IT IS TO THE HINDUS that we owe the first system of medicine," states Wise. Other Western scholars have indicated that the Greeks are indebted to the ancient Hindus for the growth and development of medical knowledge. Since modern Western medicine is principally based on the Greek system, we are indirectly dependent, in some particulars, upon Indian medicine and surgery.

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The Illinois Medical Journal

June, 1948
Vol. 93, No. 6

Official Journal of the Illinois State Medical Society

EDITOR — Harold M. Camp. EDITORIAL BOARD — James H. Hutton, Chairman, Frederick H. Falls, Josiah J. Moore, Edwin M. Miller, Chauncey C. Maher, Harry S. Gradle, Harry Culver, Walter Stevenson, Raymond W. McNealy.

Editorials

THE 1948 ANNUAL MEETING

The 1948 Annual Meeting was held at the Palmer House, Chicago, on May 10-12. Although weather conditions were bad with daily rains during the meeting, the attendance was quite satisfactory, and the programs were well received. The threatened railroad strike likewise was a factor which had some effect on attendance, as those members from the down-state areas were uncertain as to whether or not the railroads would be operating when they were ready to return home from the meeting.

The Red Lacquer room, as usual, was completely filled with excellent scientific exhibits, and there were a number in the foyer outside likewise of great interest to those attending the meeting. For the first time, an actual count was made of those viewing the scientific exhibits. the final count being 4,450, this not including technical or scientific exhibitors, and non-medical people. It was a most difficult task for the secret committee on awards to make a final decision as all of the exhibits were of unusual interest.

The large exhibition hall was filled with technical exhibits which had been carefully selected and were well attended throughout the meeting. Another innovation this year was the motion picture theater where excellent scientific films were displayed throughout the day, and the attendance here likewise, was excellent. This feature will most likely become a regular feature at the annual meetings, judging from the interest which was shown this year.

The scientific meetings were conducted in the large Grand Ballroom and the attendance throughout the meeting was most gratifying to those who had labored hard to arrange the programs. Section meetings were of half day duration for the few sections desiring to have such a session, and they were arranged so they would cause but little, if any effect on the general assembly sessions.

The Annual Dinner on Tuesday evening was well attended and a very interesting program was presented. The past-presidents were introduced with only one of them missing. The President's Certificate was presented to Dr. Irving H. Neece by the Chairman of the Council, Walter Stevenson who made appropriate remarks concerning the activities of Doctor Neece during the past year. During this dinner session, the announcement of awards for outstanding scientific exhibits of the two general classes, was made by John A. Mart, Director of Scientific Exhibits.

The Society was honored by the presence of Dr. R. L. Sensenich, President-Elect of the American Medical Association, and by officers of adjoining State Medical Societies. The principal address was made by Dr. Franklyn Bliss Snyder, President of Northwestern University, his subject "Business and Higher Education". Dr. Snyder, a most interesting speaker, spoke

highly of the medical profession and told of his interest in the professional schools of his own, as well as those of other universities. It was quite obvious from the attention given to the speaker, and from many complimentary remarks following the talk, that this was one of the best addresses which has ever been presented at the Annual Dinner.

The two meeting of the House of Delegates on Monday afternoon and Wednesday morning were well attended. Much business was transacted by this Body at the two sessions. Reports were referred to reference committees at the first session, hearings were conducted, and reports were presented at the second meeting, and acted upon by the House.

Following the close of the business session on Wednesday morning, Dr. Percy E. Hopkins of Chicago was inducted into the office of President of the Society by Irving H. Neece. Dr. Hopkins gave assurance to the assembly that he desires to carry on during the coming year to the best of his ability and asked for the cooperation of the Society membership as a whole.

The following were elected at the second meeting of the House of Delegates:

Walter Stevenson, President-Elect, Quincy

Raleigh C. Oldfield, First Vice-President, River Forest

Fred Muller, Second Vice-President, Chicago

Harold M. Camp, Secretary-Treasurer, Monmouth

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Percy E. Hopkins, M. D.

President, Illinois State Medical Society

1948-1949

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Third District; Oscar Hawkinson, Oak Park
Arkell M. Vaughn, Chicago
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Election of Standing Committees
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A. L. Nickerson, Kankakee
Committee on Medical Education and Hospitals
Willard O. Thompson, Chicago
Committee on Medical Benevolence
Oscar Hawkinson, Oak Park
Committee on Medical Testimony
Oscar Hawkinson, Chairman, Oak Park for four years
Everett P. Coleman, Canton, for four years
Warren W. Furey, Chicago, for three years
W. J. Gillesby, Effingham, for three years
Walter L. Palmer, Chicago, for two years
Arthur F. Goodyear, Decatur, for two years
Harry A. Oberhelman, Chicago, for one year
E. H. Weld, Rockford, for one year.
Committee on Archives
Josiah J. Moore, Secretary, Chicago

The meeting place for the 1949 annual meeting was left to the decision of the Council after a thorough investigation of cities in Illinois where an annual meeting can be held.

The total registration at the meeting was approximately 3,300 and the physician registration was 2,400. All local committees in Chicago are to be congratulated for all local arrangements and especially for the efforts made to see that everything was arranged to the best advantage of all those who attended the meeting. Drs. R. C. Oldfield, and M. M. Hoeltgen, as Chairman and Vice Chairman of the Committee on Arrangements carried on their respective functions most satisfactorily during the many months preceding the meeting in order that everything possible would be done to insure a successful annual meeting.

The many fine papers which were presented during the annual meeting will be published in the Illinois Medical Journal in coming months, and they will no doubt be of much interest to our readers. At the close of the second meeting of the House of Delegates, the Secretary was instructed to give the thanks of the Society as a whole for the unusually fine annual meeting of 1948.

SCIENTIFIC EXHIBIT AWARDS

The Committee on Awards at the 1948 annual meeting faced a difficult task when they reviewed the outstanding scientific exhibits assembled in the Red Lacquer Room, by the Director of Exhibits, Dr. John A. Mart of Chicago. The final decision of the Committee on Awards was announced at the annual dinner on Tuesday evening as follows:

1. For Original Work:

GOLD MEDAL: "Heparinemia and Hemorrhia"
Exhibitor: J. Garrott Allen, C. McKeen, R. Elghammer,
M. Sanderson, W. Egner, Burt Grossman, J. Crosbie.
Institution: Department of Surgery, University of Chicago School of Medicine

SILVER MEDAL: "A New Concept of the Paraurethral Glands"
Exhibitor: John W. Huffman
Institution: Northwestern University Medical School

BRONZE MEDAL: "Wounds of the Heart. A new Experimental Method for Control of Hemorrhage"
Exhibitors: Howard Reiser, David S. Fox, Rudolph Janda, Hilger Perry Jenkins
Institutions: University of Illinois College of Medicine, Woodlawn Hospital, Chicago

BRONZE MEDAL: "Radioactive Isotopes. Index of Circulation in Peripheral Vascular Disease"

Exhibitors: Morris T. Friedell, Fenton Schaffner, and William Pickett

Institution: Hektoen Institute for Medical Research of Cook County Hospital

BRONZE MEDAL: "Inhalation of Penicillin Dust"

Exhibitors: Louis Krasno, Mary Karp, Paul S. Rhoads

Institutions: Northwestern University Medical School, University of Illinois College of Medicine

2. For Educational Value:

GOLD MEDAL: "Amino Acids in Clinical Medicine"

Exhibitors: Karl A. Meyer, Donald D. Kozoll, William S. Hoffman, Frederick Steigmann and Hans Popper

Institution: Hektoen Institute for Medical Research of the Cook County Hospital

SILVER MEDAL: "Breech Presentation"

Exhibitor: Frederick H. Falls and Charlotte S. Holt

Institutions: University of Illinois College of Medicine; State Department of Public Health

BRONZE MEDAL: "Antihistamine Drugs"

Exhibitors: Samuel M. Feinberg, Theodore B. Bernstein, Alan R. Feinberg, Sidney Friedlaender

Institution: Northwestern University Medical School

BRONZE MEDAL: "Cancer Diagnosis in a Small Community Hospital"

Exhibitors: Bernard M. Chapman, Isadore Pilot

Institution: Edgewater Hospital, Chicago

BRONZE MEDAL: "Congenital Cystic Malformation of the Lung. Pathologic Characteristics and Differential Diagnosis"

Exhibitors: W. E. Adams and James M. Fritz

Institution: Department of Surgery, University of Chicago School of Medicine

All exhibits which were shown at the meeting deserved special attention and commendation. It was the general impression of most of those at the meeting that this was the finest array of scientific exhibits ever assembled for an annual meeting of the Illinois State Medical Society.

Once more it was brought out forcibly that the scientific exhibits are one of the highlights of the present day medical meeting.

NATIONAL CONFERENCE OF COUNTY MEDICAL SOCIETY OFFICERS

County medical society officers are invited to participate in three panel discussions on "The Job of The County Medical Society" on June 20, at the Palmer House, Chicago.

PROGRAM

9:30 a. m.

Registration

Call to Order: A. M. Mitchell, M.D.
Chairman, Terre Haute, Indiana

Address of Welcome: E. L. Henderson, M.D.
Chairman, Board of Trustees, A.M.A.
Louisville, Kentucky

10:00 a. m.

I. The County Medical Society—Its Part in Medical Organization
- A. Relation to the State Medical Association
- B. Relation to the American Medical Association
- C. Relation to Other Medical Organizations—N.P.C., A.A.P.S., Blue Cross, A.M.C.P., Academy of General Practice, etc.

Discussant: F. J. Holroyd, M.D.
Princeton, West Virginia

Question and Answer Period

11:00 a. m.

II. The County Medical Society—Its Responsibility to the Membership
- A. Organization Responsibilities
 1. Membership—Selection and Maintenance
 2. Censorship—Maintaining Ethics
 3. Hospital Relations

Discussant: T. J. Danaher, M.D.
Torrington, Connecticut

- B. Scientific Programming

Discussant: C. J. Milling, M.D.
Columbia, South Carolina

- C. Fellowship and Business
 1. Social Functions—Golf, Bowling, Parties
 2. Business Aids—Credit and Collection, Telephone Answering Service, etc.

Discussant: C. L. Mulfinger, M.D.
Los Angeles, California

Question and Answer Period

12:30 p. m.

Luncheon (Subscription)

Prominent Speaker on "National Medical Emergency"

2:00 p. m.

III. The County Medical Society—Its Responsibility to the Public
A. Medical Care—Serving the Public
1. Pay Patients
2. Medically Indigent
3. Indigent—Government Clients
Discussant: D. B. Wiley, M.D.
Utica, Michigan
B. Community Agencies
1. Special Programs—Participation in Cancer, Tuberculosis, Heart, etc. programs
2. Community Chest—The Place of the Medical Profession in the Drives for Funds
3. Health Councils—The Function of the Medical Society
Discussant: B. O. Mork, Jr., M.D.
Worthington, Minnesota
C. Newspapers, Radio, Industry, and Labor
Discussant: W. Andrew Bunten, M.D.
Cheyenne, Wyoming
D. Legislative-Political Responsibilities of the County Medical Society
Discussant: R. B. Robins, M.D.
Camden, Arkansas

Question and Answer Period

TRACE SOME BEHAVIOR DISORDERS TO SLEEPING SICKNESS

A definite relationship between some childhood behavior problems and encephalitis is shown by Drs. J. Victor Greenebaum and Louis A. Lurie in an article in the April 3 issue of The Journal of the American Medical Association.

In a study of 78 children who were referred to the Child Guidance Home at Cincinnati, O., Drs. Greenebaum and Lurie conclude that many behavior disorders afflicting the children can be traced to encephalitis, occurring as a complication of other diseases, usually during the first ten years of life.

"From our experience," the physicians state in the article, "we feel that the disease, as a complication of acute infectious and contagious diseases of children, is frequently overlooked."

"One of the reasons," they continue, is that "the neurologic examination often fails to disclose any abnormality. Another reason, and probably a more potent one, is the fact that in the great majority of cases there is no history of an attack of encephalitis."

According to the article, several different, and quite varied, types of behavior disorders may follow encephalitis.

Sometimes there are the simpler disturbances, common to any youngster, such as temper tantrums, running-away or lying.

In other instances, however, the children under observation showed the more violent symptoms of screaming outbursts, irrelevant talk, viciousness, cruelty and hallucinations.

They point out, however, that progress is being made in the efforts to diagnose encephalitis, even without knowing much about its cause or essential nature.

The possibility of encephalitis must be considered the article states, when "confronted with a child who is extremely hyper-active, restless and destructive, has a short attention span, is highly distractible, lacks self-confidence and whose actions are extremely unpredictable."

The article is the third report of a continuous study of the relation of encephalitis to behavior problems in children.

In some cases, the study covered a 25-year period and involved research and understanding of all the physical, psychiatric, psychologic and sociologic factors governing a given history.

As to remedies for children whose behavior disorders are associated with encephalitis, the physicians sound a somewhat discouraging note.

Of the 78 children under observation, they state, only 12 have thus far made a fair social adjustment, despite the best medical, psychiatric and social therapy.

This, they conclude, is because the symptoms are primarily the result of changes in the nervous system — changes which, at present, are unable to correct.

Medical Economics

The Medical Economics Committee — Chauncey C. Maher, Chmn., 6 North Michigan Avenue, Chicago, Edwin S. Hamilton, V. Thomas Austin, Emmet B. Bay, Jay McDonald Milligan, George Halperin, Marie Wessels, Thomas C. Browning, Roland R. Cross, Milton E. Bitter, Edwin F. Hirsch, Ford Hick, Carroll C. L. Birch, Hubert L. Allen.

MEDICAL CARE OF THE RECIPIENTS OF THE ILLINOIS PUBLIC AID COMMISSION

As most of the younger members of the profession have entered the practice of medicine without having gone through the trying days of the Illinois Emergency Relief Commission, they are unaware of the background of reasons leading up to the need of a Medical Advisory Committee to the Illinois Public Aid Commission.

During the depression of 1933 to 1938 widespread unemployment increased the doctor's charity load until it became beyond his ability to carry it. As a result, the doctors were inclined to welcome the Illinois Emergency Relief Commission plan which did pay some of the bills for services which otherwise would have been unpaid. During this period of time, the doctors had the same volume of work and the same overhead of expenses but decidedly curtailed incomes. In fact, many of them had to borrow on their insurance policies to pay their insurance premiums so under these circumstances, any additional income was more than welcome. The I.E.R.C. funds were limited, particularly for medical purposes, although additional funds were available for playground work, for teaching women how to sew, and teaching farmers how to plant gardens, as well as other less essential things. The program was by no means under medical control, it was entirely in the hands of non-medical people, many of them brought in from New York City and some from Chicago and sent to rural districts where they had no knowledge of the psychology of the citizens there and not the slightest knowledge of or sympathy with local circumstances. Some of them were decidely anti-medical in their attitudes and this created many problems which do not exist at the present time. The doctors could not really furnish adequate treatment because they were limited in the things they could do and the types of cases they could treat. All cases were supposed to be acute, and all surgical cases were presumed to be only emergencies. The fee in many parts of the state for emergency surgery of any type was a maximum of twenty-five dollars. The funds, being limited, usually ran out about the 18th or 20th of the month and any work done thereafter was unpaid. If a doctor treated a patient in the country over mud roads for pneumonia and had to see that patient at least once a day with his first call perhaps on the 18th of the month, he might get paid for the first visit: but the other visits, coming after the funds ran out, had to be furnished without any recompense. On the other hand, if he saw the patient the first of the month, he was able to get pay until the patient either recovered or the funds ran out about the 18th. It was noted that almost all the emergency surgery occurred from the 1st to the 15th of each month, and thereafter very little of it was found. As these problems were being slowly ironed out, the plan was discontinued. One reason being that the country had gotten into a wartime prosperity of making munitions for Europe before we became involved in a shooting war.

The Old Age Pension Act became a law in the latter part of the 1930's and as this included funds for medical care, it was forced upon the

attention of the medical profession which had to render that care. As a result of difficulties in carrying out the medical care provisions of this law, in December 1940 the administrators of the Old Age Pension Act asked for an Advisory Committee to be appointed by the Illinois State Medical Society to help in developing a program within the limitations of the Act. In September 1941, a program had been partially arranged and County Medical Society Advisory Committees were appointed to work with County Departments of Public Assistance. In March 1942, the program was under way but was limited in scope because the funds were also quite limited and the amount that could be paid was under a rather low ceiling. As a result, local relief authorities were frequently called upon to supplement the funds and as many of them were not working in harmony with this new department, these supplemental funds were often quite difficult to obtain. In June 1943, the Illinois Public Aid Commission combined general relief, aid to dependent children, blind assistance and old age assistance under one group, and since that time have definitely increased the efficiency of their work. In July 1945, the Rennick-Laughlin bills provided for conversion of county poor farms into nursing homes for the chronically ill, and had these places also open to the general public needing similar care who wished to pay for it. In January 1946, the commission approved an increase in cost standards for hospital care to 90% of the reimbursable rate, and in September 1946, the commission authorized direct payment for hospital bills and terminal illnesses.

PLAN OF CARE:

The general plan of this care was that if a recipient of one of these subdivisions of the Public Aid Commission was in need of medical care, he was to call the physician of his choice, receive treatment as a private citizen, and then the doctor was to submit a bill for services rendered. In the early days, the doctor was supposed to anticipate for a year in advance the medical needs of the patient and it was some time before the advisory committee could get this changed to a more sensible plan of payment for services rendered. Then the forms that had to be filled out were in quadruplicate and this caused much difficulty until again, the committee was able to get them reduced to one form which was in reality a statement of account and which simplified the bookkeeping greatly. It was attempted to emphasize throughout this program that it was a limited one and that the funds were sometimes insufficient and therefore a reduced fee schedule was necessary. The committee met with the officers of the various county medical societies in councilor districts and finally this plan was approved through the House of Delegates.

The original fees for office call, house call, and night call were $1.00, $1.50, and $2.00. These were changed to $1.50, $2.00 and $3.00 and in addition $5.00 was allowed for a complete examination in cases requiring it where a certain amount of laboratory work was included. In addition $1.00 was allowed for the administration of the ordinary hypodermic medications, or for drugs, and the surgery fee scale was from $5.00 to $25.00 for minor cases and a maximum of $50.00 for major cases. Last year this was changed to from $75.00 to $100.00 with an additional allowance of $10.00 for an assistant, and for an anesthetist, if these are not paid by the hospital. All surgery bills and all bills for unusual drugs, or unusual or prolonged hospitalization now have to be passed upon by the local medical advisory committee to avoid needless hospitalization or over prescribing.

Problems have arisen in reference to certain specialities, particularly x-ray and eye, ear, nose and throat. As a result sub-committees in these specialties have been appointed and they have made their own standards of service rendered and fees which have been approved by the I. P. A. Commission.

The State Advisory Committee tries to limit its functions to that of an advisory board in matters of general policy and it hopes that county committees, with increased experience, will handle all the local problems as they are far better able to do this than the State Committee which is oftentimes too far away from the local problems, but the State Advisory Committee will help County Committees if requested to do so. It has had to take in hand some problems of local abuse in order to get them straightened out, but it is a source of comfort to say that most of the so-called abuses have simply been cases of misunderstanding and have been rather readily corrected.

An increasing number of doctors are asking for a direct payment in the assistance cases and the I.P.A.C. is also in favor of this. Unfortunately, the federal funds are subject to regulations which make direct payment to the recipient mandatory and therefore, payment to the doctor cannot be made directly at the present time. Payment for terminal illness and hospital bills is made directly, but these come from state funds only and are not out of matched federal funds. Since the I.P.A.C. is also in favor of direct payment to the doctor, attempts have been made to introduce bills in congress to make this possible. So far they have been unsuccessful for various reasons, chiefly because of the bills being tacked on to other types of legislation which had objectionable features.

Funds for the present biennium have been reduced and there is the possibility that services may be curtailed at the end of this year. But there is also the possibility that ultimately a liberalization of the program may bring an increase in funds. In any event, the program with its many objectionable features and its numerous weaknesses and drawbacks does furnish pay for medical service to a group of citizens in the state who are becoming increasingly numerous and who are becoming more and more of a medical problem. Also this group is one which would, under other circumstances, be largely dependent upon medical charity.

While the Advisory Committee has been unable to succeed in all it has attempted to accomplish, it has done fairly well in many respects and it feels that it is quite important that any program, regardless of its drawbacks, be kept under medical supervision to protect the interests of both the patients and the profession.

E.P.C.

DOCTORS REPORT SPEEDY TEST FOR SICKLE-CELL ANEMIA

A rapid test to demonstrate the sickling process in blood, whereby the red corpuscles acquire a sickled, or crescent-like shape, is reported by Karl Singer, M.D. and Sidney Robin, M.D., in the April 17 issue of The Journal of the American Medical Association.

The two doctors are from the Department of Hematologic Research and the Kunstadter Laboratory for Pediatric Research, Michael Reese Hospital, Chicago.

Sickle cell anemia, which results from the sickling phenomenon, is, in the words of the authors, "a great masquerader," manifesting itself in several different ways. Often, according to the article, sickle cell anemia may be confused with perforated ulcers, rheumatic fever, tuberculosis, or skin and nerve diseases. The disease is confined principally to Negroes and the tendency to it is hereditary.

Because of these diagnostic pitfalls, the authors state that "the need for routine examinations for the sickling phenomenon has been emphasized repeatedly," adding that "particularly in the dramatic surgical conditions a rapid test is urgently needed."

The present methods of examining the sickling process are inadequate according to the authors, because "they do not provide the required information with sufficient rapidity and reliability."

In the rapid test devised by Drs. Robin and Singer, a drop of the suspected blood is mixed with a drop of cloudy broth culture of non-disease-breeding bacteria and then sealed. Thus, according to the article, "the living organisms consume oxygen rapidly and also give off carbon dioxide, . . .creating the most favorable conditions for the detection of sickling tendencies."

"The mechanism on which the test is based," the authors state, "is the rapid reduction of the hemoglobin contained in the corpuscles, which is a necessary requirement for the sickling phenomenon."

State Department of Public Health

COMMUNICABLE DISEASE TRENDS*
1st QUARTER—1948

For the first 13 weeks of 1948, Illinois and the Nation as a whole have been following a similar trend in the incidence of major communicable diseases.

One outstanding exception, however, was the marked increase in the incidence of MEASLES in Illinois, which deviated from its usual 3-year cycle and approached epidemic proportions. Morbidity figures for this disease in the first quarter of 1947 increased from 571 cases to 26,917 for the corresponding period of 1948. An epidemic in measles was not expected this year, since the last peak occurred in 1946 when a total of 25,995 cases was reported.

The incidence of INFLUENZA for this season made a decisive drop below last year. This was expected, since the epidemic of INFLUENZA occurred in the early months of 1947, accounting for the high prevalence in the first quarter of that year. The incidence of influenza for the United States, as compared to Illinois, did not show quite as sharp a rate of decline.

Twenty-eight cases of DIPHTHERIA were reported for the first quarter of this year. This shows a decrease of 26 cases from the corresponding period of 1947. This is the lowest number of cases ever recorded for that period in the State of Illinois. Heretofore, the year of lowest diphtheria incidence was in 1945, when a total of 47 cases was reported for the first 13 weeks of that year.

POLIOMYELITIS morbidity reports for the first 13 weeks were well under both last year's figures and the 5-year median. The State's figures for 1948 show a decrease of 68% from 1947, while for the entire country the decrease was 40%.

MAJOR COMMUNICABLE DISEASES† — STATE AND NATION, 1st QUARTER — 1948

Disease	ILLINOIS			UNITED STATES		
	1948	1947	5-Year Median	1948	1947	5-Year Median
Diphtheria	28	54	152	2,725	3,760	3,760
Influenza	30	752	122	121,308	206,662	175,984
Measles	26,917	571	6,590	199,206	69,066	210,408
Meningitis, Meng	57	59	219	1,119	1,117	3,232
Poliomyelitis	8	25	13	399	667	453
Scarlet Fever	1,837	1,939	2,870	30,853	35,869	51,038
Smallpox	0	2	3	33	61	136
Typhoid & Para	17	22	20	566	570	692
Undulant Fever	132	117	47	1,185	1,372	**1,172
Whooping Cough	794	1,168	1,033	28,738	33,138	31,641

*By Jerome J. Sievers, M.D.

†Provisional Totals....**2-year average, 1946-1947

WHOOPING COUGH has declined, both in Illinois and in the Nation as a whole. The total of 794 cases reported in Illinois this year is well below the 1,168 reported for the corresponding period last year and the 5-year median calculated at 1,033. The sharp rate of decline in this State may be due partially to the extensive and effective use of whooping cough vaccine, made available to physicians by the Illinois Department of Public Health.

LOCAL PHYSICIANS AND HEALTH DEPARTMENT WORK TOGETHER IN TORNADA AREA

On March 19 at 7:45 a. m. a tornado cut a swath of death and destruction across Madison and Macoupin counties. Local physicians, State Health Department representatives, and District Health Officers Dr. Norman J. Rose and Dr. James W. Chapman immediately rushed to the scene of disaster to insure that all threats to the public's health were under control.

The town of Bunker Hill was 80% damaged; Fosterburg was leveled; Woodburn was leveled; Gillespie suffered a great deal of damage; Alton was damaged in three areas; and Litchfield was slightly damaged.

With the aid of the State Police, supplies of blood plasma, tetanus antitoxin, typhoid vaccine and penicillin were rushed to the area and the Department of Aeronautics also cooperated in flying medical supplies.



Dr. C. W. Draper of Bunker Hill planning with the State District Health Officer and District Public Health Nurse. Left to right: Florence Buchanan, R.N.; Dr. James W. Chapman, Health Officer; and Dr. C W. Draper, local physician.

The accompanying photographs show the doctors at work. Naturally these three physicians were not the only one giving their services in Bunker Hill and Fosterburg, but they represent the fine spirit of cooperation on the part of the medical profession.



Representatives of the Alton Medical Society talk things over with the State District Health Officer. Left to right: Dr. Norman J. Rose, Health Officer; Dr. Edward Mulvill, Alton Medical Society; and Dr. William C. Eaker, Alton Medical Society.



Drs. Edward Mulvill and William C. Eaker of the Alton Medical Society being assisted by State Public Health Nurses in giving typhoid immunizations to Fosterburg children.

Correspondence

OPHTHALMOLOGISTS ANNOUNCE CLINICAL CONFERENCE

The Chicago Opthalmological Society announces its Second Annual Clinical Conference to be given November 29-December 4, 1948. Special attention will be paid to the pathology and the clinical aspects of gloucoma and retinal diseases. Recent advances in general opthalmic therapeutics will also be presented. The class will be limited to 50. For further information address Miss Maud Fairbairn, 8 West Oak Street, Chicago 10, Ill.

PENNSYLVANIA MEDICAL ALUMNI DINNER JUNE 23

University of Pennsylvania Medical Alumni will hold a dinner at the Convention of the American Medical Association in Chicago, Wednesday, June 23, 1948 at the Lake Shore Club, 850 Lake Shore Drive. On arrival in Chicago, alumni should contact Miss Frances R. Houston, Executive Secretary of the Medical Alumni Society, at the University of Pennsylvania registration booth.

SPIES AND O'NEIL ON MILK COMMISSION PROGRAM

The American Association of Medical Milk Commissions will hold its forty-first annual meeting in Waukesha, Wisc., June 18 to 21. Guest Speakers will be Tom Douglas Spies, M.D., Professor of Nutrition and Metabolism, and Chairman of the Department at Northwestern University, School of Medicine.

Dr. John P. O'Neil, Chairman of Committee on Nutrition of the Chicago Medical Society, will be the speaker at the annual banquet.

PROGRAM FOR POLIOMYELITIS CONFERENCE JULY 12-17

Twenty international medical and scientific authorities will present papers on poliomyelitis at the First International Poliomyelitis Conference in New York City, July 12-17.

Speakers and titles of their papers follow:

Dr. Albert B. Sabin, professor of research pediatrics, University of Cincinnati, Cincinnati, Ohio, "Epidemiological Patterns of Poliomyelitis in Different Parts of the World."

Professor H. J. Seddon, medical director, Wingfield-Morris Orthopaedic Hospital, Oxford, England, "Economic Aspects of Management of Poliomyelitis."

During the session on the early stage of poliomyelitis, delegates will hear three speakers — Dr. Irvine McQuarrie, head, Department of Pediatrics, University of Minnesota, Minneapolis, Minn., "The Evolution of Signs and Symptoms;" Dr. David Bodian, associate professor of epidemiology, The Johns Hopkins University, Baltimore, Md., "The Pathological Anatomy," and Dr. Fritz Buchthal, director, Institute of Neurophysiology, University of Copenhagen, Copenhagen, Denmark, "The Pathological Physiology."

Dr. John A. Anderson, head, Department of Pediatrics, University of Utah, Salt Lake City, Utah, will discuss "Diagnosis and Treatment"

in the management of the disease during the early stage.

Three speakers will discuss the convalescent stage of poliomyelitis — Dr. E. T. Bell, professor of pathology, University of Minnesota, "Progressive Pathology;" Dr. Arthur L. Watkins, chief of physical medicine, Massachusetts General Hospital, Boston, Mass., "Progressive Disabilities," and Dr. Ralph K. Ghormley, consultant on orthopedic surgery at Mayo Clinic, Rochester, Minn., "Progressive Deformities."

Dr. William T. Green and Dr. Joseph S. Barr, both clinical professors of orthopedic surgery at Harvard University, Boston, Mass., will present papers on management of the disease. Dr. Green's paper will be on the convalescent stage of the disease and Dr. Barr's on the late stage.

Three authorities will be at the speaker's rostrum for the session on bulbar poliomyelitis. They will be Dr. K. T. Neubuerger, professor of pathology, University of Colorado, Denver, Colo., "The Pathology;" Dr. A. B. Baker, professor of neurology, University of Minnesota, "The Diagnosis," and Dr. James L. Wilson, professor of pediatrics and communicable diseases, University of Michigan, Ann Arbor, Mich., "The Treatment."

Presenting papers on immunology and chemotherapy in the disease will be Dr. Isabel M. Morgan, assistant professor of epidemiology at The Johns Hopkins University, "Mechanisms of Immunity in Poliomyelitis;" Dr. John R. Paul, professor of preventive medicine, Yale University, New Haven, Conn., "Immunogenic and Other Types of Poliomyelitis Viruses," and Dr. Raymond N. Bieter, professor of pharmacology, University of Minnesota, "Experimental Chemotherapy."

There will be three speakers at the session on public health aspects of epidemic poliomyelitis. They will be Dr. Joseph G. Molner, Deputy Commissioner of Health in Detroit, Mich., "Public Health Measures;" Dr. C. W. Munger, director, St. Luke's Hospital, New York City, "Hospitalization," and Elizabeth P. Rice, director of social service, Grace-New Haven Community Hospital, New Haven.

THE AMERICAN CONGRESS OF PHYSICAL MEDICINE

Will hold its twenty-sixth annual scientific and clinical session Sept. 7, 8, 9, 10 and 11 inclusive, at the Hotel Statler, Washington, D. C. Scientific and clinical sessions will be given the days of Sept. 7, 8, 9, 10 and 11. All sessions will be open to members of the medical profession in good standing with the American Medical Association. In addition to the scientific sessions, the annual instruction courses will be held Sept. 7, 8, 9 and 10. These courses will be offered in two groups. One set of ten lectures will be based primarily on physics and physiology and attendance will be limited to physicians. One set of ten lectures will be more general in character and will be open to physicians as well as to physical therapists. The physical therapists must be registered with the American Registry of Physical Therapy Technicians. Full information may be obtained by writing to the American Congress of Physical Medicine, 30 North Michigan Avenue, Chicago 2, Illinois.



It will be noted that families with an income below $1,000 per year have nearly four times as much disability from tuberculosis, nearly three times as much disability from orthopedic impairments, and approximately twice as much diseases, and nervous diseases as families with incomes over $5,000. For relief families, the ratio rises to nearly ninefold for tuberculosis, and fourfold for orthopedic impairments, between threefold and fourfold for rheumatism and digestive diseases. Considering all causes of disability together, the group with incomes under $1,000 shows 66 per cent more disability and the relief group shows 155 per cent more than the families with incomes over $5,000. C. E. A. Winslow, D.Sc., Am. J. Pub. Health, Jan., 1948.

Original Articles

PRESIDENT'S ADDRESS
THE CHALLENGE OF ORGANIZED MEDICINE IN A CHANGING SOCIAL ORDER

I. H. Neece, M.D.
DECATUR

Centuries ago, an old Greek philosopher remarked, "You can never step into the same river twice." He meant that the inevitability of change is the only unchanging fact in the world. Not the individual, not society, not the world itself, stands still. Life manifests itself always in movement from the atom to the cosmos.

Certainly there are few who will differ with Heraclitus. We have all seen too much in the last half century to think otherwise. These years will go into history as a period of exceptional unrest and change — of strife and movement — of invention and scientific progress, during which things spiritual and material, economic and social, have been shaped and molded, destroyed and recreated, to an extent probably never before witnessed in a single generation.

Some years ago there was translated from the Polish into the English a remarkable novel of the beginning of the Christian era, bearing a Latin title, "Quo Vadis?" It had to do with a very unpleasant person called Nero. The title, "Quo Vadis?", which means "Where are you going?", has always intrigued me; it is a question we would do well to ask ourselves at frequent intervals in this world of change, and never more so than right now.

Presented at the 108th annual meeting, May 11, 1948, Chicago.

The tempo of the world has quickened. Customs, methods, governments, laws, traditions, beliefs — are changing. Around the world the things that have been are on trial for their lives before the bar of things that are.

To deal intelligently with the query "Quo Vadis?" or "Where do we go from here?" involves some consideration of other questions — whence did we come, where have we been?

So let us look back a bit along the trail we have traveled. When we consider the early days, we find it difficult to believe that techniques were so crude and knowledge so limited. Comparison of medical practice one hundred years ago with the highly technical and specialized system of the present day services to dramatize the extent of medical progress. The backward perspective gives us opportunity to view medical and social situations in broad outline, to see trends, dimensions and proportions. An outstanding feature of this century past has been the rapid shift and change of long established social institutions. As we view these changes, the realization is forced upon us that society is a delicately integrated body, just as is the body of man; so closely knit and interdependent are its parts that a change in any one must necessarily result in a change in all other parts, in a total readjustment.

It follows, therefore, that advances in the field of medicine which result in the saving of lives and the improvement of health must be followed by a reorganization of society as a whole. When we prolong many lives, we change the age structure of the population. A change

in the age structure in turn upsets the balance of established institutions and forces social and economic readjustments.

That is one of the principal consequences of one hundred years of medical progress — progress especially in preventive medicine — which has brought about an enormous diminution in the diseases and deaths of early life, the acute infectious diseases, and infant mortality and virtually doubled the average length of human life. The age structure of the population has shifted and is still shifting. The facts and figures are familiar to all of us: In 1900 there was one person 60 years of age or over in every 20 members of society; in 1930 there was one in every 12; and by 1960 there will be probably one in every six. One-sixth of the population will be sixty years of age or over!

Here undoubtedly is the greatest factor of its sort that has ever affected society. In past years there were changes due to war and pestilence but they have meant loss, not saving, of life. Here, growing from medical progress, is a social and economic problem of vast magnitude. The first efforts toward solution have taken the form of social security legislation and old-age pensions; but these efforts do not touch the real problems of old age and retirement in an industrial civilization. They do not touch the consequences to medicine.

It is axiomatic in our profession that, as one disease diminishes, it is replaced by another. As the incidence of tuberculosis, typhoid, dysentery, and smallpox goes down, cancer and diseases of the circulatory system rise. The tremendous change in the leading causes of death during the last hundred years is well known to all of us.

That far the physician sees clearly. Sometimes, however, I believe we fail to realize that medicine itself is one of the institutions doomed to be affected by the changes in society. Changes in the social structure inevitably work their way into the practice of medicine. Medicine cannot stand alone; it is an integral part of the social structure. It must either make the necessary adjustments to change or be swept aside. Readjustment, continual readjustment of medicine is the inevitable consequence of medical progress.

Medicine, of course, has made adjustments — many of them. No practitioner of today would think of using methods employed by practitioners fifty or one hundred years ago. A graduate in medicine in those days was only an apprentice in medicine; by many years of close attention to clinical experience, hard work, and post-graduate courses he became a doctor.

Many of our graduates went to England, France, and Germany to finish their education and brought back the knowledge gained to improve our work in the United States. During the past few years, however, our medical teaching has been sought by the graduates of the European schools.

The doctor one hundred years ago knew little of the causes of disease; his mission was to cure his patient if he could, and to relieve suffering as much as possible. The general practitioner was a heart specialist, lung specialist, stomach specialist, and skin specialist, all in one. Death always lurked around the corner. Typhoid came regularly every Spring and every Fall. Scarlet fever and influenza took their annual toll. The only treatment the physician knew for pneumonia was to wrap the patient in blankets and give him fresh air. Infant mortality was deplorably high. Aseptic surgery was unkown and would have been scoffed at had any radical dared to suggest it. Those were the days of the *vis medicatrix naturae*, the natural impulse of living tissue to remove disease or repair injury.

In spite of his deficiencies, however, the doctor was more intimately associated with his patients than the average doctor of today. Frequently his sympathetic advice was worth more than the medicine he prescribed. He knew the reactions of people in health and in sickness and he was a close student of human nature. Having no instruments of diagnostic precision, his senses were highly trained and his general comprehension was acute. He learned more medicine from clinical experience than from books.

Those were the real "horse and buggy" days. But the doctor often went on foot and carried his saddle bags on his shoulder. He filled his own prescriptions and used but few drugs and those for their therapeutic effect. He met emergencies, when they arose, as best he could, with faith in himself as an agent of a Higher Power.

The medical student of today has all of the scientific medical discoveries since Aesculapius, collected, condensed, and revised for his instruction. He has four years of carefully supervised

teaching, two years of hospital work for assimilation before he is allowed to demonstrate his ability as a doctor.

The physician of today is always aided by modern trends in medical research. Medical research has directly stimulated the development and improvement in x-ray machines, equipment, and technique. Radiologists have long used 200 kilovolt machines in treating cancer. Then curiosity developed the 400 kilovolt machine and finally the million volt appartus. Deep x-ray therapy found ready use for each in spite of newness and cost. Recently we have seen advertisements of great industries using million volt x-ray machines of new, compact, and safe design in search of flaws in metallic castings and machinery. Truly the world of science is generous.

The electron microscope is a recent development by radio engineers who gave us new tools to search with among things formerly invisible. The old-fashioned centrifuge, operating at what we thought was good speed, has now been developed into the untracentrifuge which has power undreamed of to separate things, even to pull cells apart for study. Medical science is quick to use it when available.

The physiologists, pharmacologists and chemists have been equally busy in their respective fields and today all the world knows about vitamins, the sulfa drugs, penicillin and changes which have come about in the drugs used by physicians in treating disease. For instance, the modern young medical graduate doesn't use much calomel, but he knows a lot about new medicines and hormones. His ideas about the treatment of malaria, fractures, infections, and venereal diseases are quite different from those of his father, but they are very well based upon exact research and the study of data accumulated from objective investigations in many quarters of the world.

The students of bacteriology have new techniques for old processes and the brand new field of virus studies to work into as, almost daily, research changes our ideas of the causative factors of some diseases. Now we can about agree that among the important virus diseases are influenza, the common cold, yellow fever, encephalitis, smallpox, measles, and infantile paralysis. The field of virus studies is one the "horse and buggy" doctor never dreamed of.

In resume it might be said that current medical science is keenly alive to its opportunities and responsibilities and is doing its fascinating part in helping to make this a better world to live in.

The changes in the social structure have influenced the very structure of medical practice. In 1848 nearly all physicians were general practitioners. Certain persons became especially interested in surgery, but they seldom abandoned general practice entirely. This combination of physician and surgeon in one practitioner came down from early times when differentiation would have been impractical. As a result surgery always maintained equal prestige with internal medicine, in contrast to the professional and social distinctions which have been traditional in Great Britain.

It is usually assumed that specialization was lacking at that time simply because there was not enough knowledge to justify it. That was indeed one factor in the situation. But there was another basic explanation. Prior to about 1830, American physicians did not usually think in terms of a localized pathologic process or of specific diseases. Speculative pathologies had dominated medical thought up to that time. All forms of illness were ascribed to one or two generalized conditions, such as impurities of the blood or the existence of excessive tension or laxity in the nervous and vascular systems. They were appealing theories since they solved all pathologic problems at once and also opened up a royal road to therapeutics. If all illness was due, as Benjamin Rush claimed, to excessive tension in the blood vessels, then all patients could be cured by bleeding to relieve that tension.

As long as all forms of illness were viewed as expressing a single, underlying condition, there was no need for specialization in practice. Incidentally, there was also no use for major surgical operations, for one could hardly operate on the blood or a vague condition common to the whole vascular system. Hence, surgical practice remained largely a matter of fractures, amputations, and other superficial emergencies. Here again there was little need for specialization.

Only when a localized, structural basis for pathology replaced the speculative systems was specialization possible. When specific diseases were identified by correlating lesions with symp-

toms, the possibility of treatment by removing these lesions became obvious. Surgery was by 1840, therefore, beginning to move from the periphery toward the center of medical practice. And there was now some reason for specializing in other fields than surgical practice, in work on a particular part or system.

But these new points of view, imported from Paris by returning American students after 1820, percolated slowly into average practice. Not until after the Civil War did specialization really get under way, even in the cities. There was strong opposition at first, partly because of the fear that it would injure the interests of both patient and practitioner, and partly because in the earlier days only quacks had claimed to be specialists. Dr. S. Weir Mitchell could recall the time in Phildelphia when to specialize meant to be professionally ostracized.

It is a long cry from those early days to modern ones, and many of us are wondering whether the swing of the pendulum has not landed us out on the end of a limb. Do not misunderstand me. I am not against real and proper specialization. But specialization can begin only after an over-all mastery of general medicine and general surgery has been achieved.

The American lay public much resembles the French. It jumps at conclusions and rushes to extremes. It is highly emotional and responds to sensational newspaper headlines. That point was emphasized by Dr. Arthur Sullivan, Managing Director of the Interstate Post Graduate Medical Association of North America, as reported in the *St. Louis Globe Democrat*, October 14, 1947. Dr. Sullivan said that people guess what is wrong with them and then select the specialist they think they should go to, without consulting the family physician or the general practitioner first. In that way valuable time and money are lost, he declared. Dr. Sullivan estimated that 80 per cent of all cases can be handled by the general practitioner. "The general practitioner," he emphasized, "is the backbone of medical practice."

According to Dr. R. B. Robbins, in a compelling article in the November 22, 1947, *Journal of the American Medical Association*, "Hints in General Surgery," the family physician, even though he does not practice surgery, is interested in surgery and surgical progress. He says: "Many general practitioners do what is known as ordinary surgery and do it well."

In the beginning, medicine was entirely an art. There was little or no science. But certain instruments like the microscope hastened its progress toward the scientific stage. Today, with increasing knowledge of physiology, pathology, and bacteriology, and the rise of specialization, medicine tends to become more a science and less an art. Intellect, emotion, habits, inheritance, and environments are to be reckoned with. Often judgment and diplomacy of a superlative degree are required to cope successfully with the peculiarities and idiosyncracies of the patient, although the scientific aspects of the case have been analyzed and interpreted perfectly. There must be exercised patience, kindness, and sympathetic understanding. Patients are human beings, and sick human beings are not normal. So we should all know something about psychiatry as well as medicine and surgery. Who, more than the general practitioner, the family physician knows this better? He does not need a course in psychosomatic medicine to tell him that.

Since 1917, when the first specialty board was established for ophthalmology, there has been a steady increase in the number of specialists and sub-specialists. We have today approximately 100,000 general practitioners, 21,500 surgeons, and 28,750 specialists. General practitioners therefore outnumber specialists and surgeons combined by more than two to one. In spite of this fact, we note a tendency for some hospitals to deny staff membership to many general practitioners. And we note an equally strong move for hospitals to take over the practice of medicine.

Looked upon too often as "just a doctor," the general practitioner remains the prime guardian of individual health. Dr. James E. Paullin, a distinguished medical specialist at Atlanta, recently told a meeting of the American College of Surgeons that America probably has more specialists than it needs and that the role of the family doctor or general practitioner will grow more important with the advancing years. The family doctor knows every member of the family and he knows them intimately. This background aids him greatly in diagnosis and

treatment. There is no doubt that his place is still secure.

No picture of the changing scene would be complete without some mention of the problems of rural medicine. The scope of the problem which we face today was well summed up by Dr. F. S. Crockett at the 1947 meeting of the National Conference on Rural Health. He said: "We doctors and farmers are trying to improve not only rural medical service but also rural health." He explained that "rural health embraces everything that will promote better living conditions, better living standards, and better medical service."

Medical indigency in rural areas primarily has three causal factors: Inability to afford the kind of medical attention needed; too few physicians and dentists; and inadequate hospitals, equipment, and nurses. These factors are interrelated so that one is definitely dependent on the others insofar as medical health is concerned.

Because the average farmer is less able to pay for adequate medical service, there is a tendency for physicians to settle in urban communities. Before the war the thousand most rural counties throughout the country had only one medical doctor for every 1700 people. In the big cities there was one doctor for every 650 people, and in 1200 rural counties containing 15 million people, there is not a recognized hospital. Actually, we should have 3.5 or 4 hospital beds per thousand rural people.

It is my conviction that the local representatives of farm organizations, together with business groups and local medical societies working in full cooperation and mutual confidence and understanding, are now in a position as never before to work out this heretofore difficult phase of delivering medical care to the people of our rural areas.

On recommendation of the Committee on Medical Service and Public Relations, the Council of the Illinois State Medical Society has recently approved the idea of forming special Health Councils in each community, to outline programs to fill the needs, and to work for their execution. In such groups every element of the community which is interested in health can be brought together in a common effort, with each challenged by the other to put forth its best exertions. Labor, management, law and the ministry, farmers and business men, press and radio, women's and men's organizations, public and private agencies, laying aside their individual differences, thus get together to concentrate all their efforts to help the medical profession raise the community health to the highest level possible. Surveys can show the need; such an organization has all the propoganda, educative, political and financial resources needed to carry out the plans. In such groups medicine must be the leader; no other element has the knowledge and experiences necessary. That is good for medicine as well as for the community.

So much has been happening, so many variations have occurred, that the average physician has not had the time nor the opportunity to keep up with the changing world about him. But make no mistake, the world has been changing. The practice of medicine is confronted at this precise time with modifications which may be not only extensive and serious but which might well alter our entire concept of what constitutes good medical practice.

I am referring, of course, to the legislative proposals which have been gaining momentum during the last 25 years and have come to a climax in the last few years in Washington. You are all aware of the introduction in Congress of the Wagner-Murray-Dingell bill, which would establish on a national scale here the same type of governmental compulsion under which the people of Great Britain now suffer. President Truman's health program includes some meritorious suggestion, but also a nation-wide compulsory health insurance plan which again threatens to remove medical practice from the hands of those who best know it, and to place it in the hands of politicians and bureaucrats.

We cannot ignore these warnings. They are coming too fast and too consistently, backed by too much political power, for us to pass them by. We must, of course, freely admit among ourselves that there is an uneven distribution of medical care. Shall government remedy this situation or shall we? We are at the crossroads. We must select the manner in which we believe medicine should be practiced and we must fight for the preservation of that system. If we do not, we are bound to end up under the domination of politicans and bureaucrats, without souls

which we may call our own.

Under the type of legislation thus far introduced, all groups of practitioners would be affected. All specialty groups, as well as the general practitioner group, would come under the provisions and influence of these plans if they become law. And the history of all such compulsory plans is that they are always modified toward more complete control of the medical profession by the government, with ever-increasing central bureau expansion and power.

It is significant that 86 per cent of Britain's doctors have rejected the system of nationalized medicine as practiced under the British panel system. That is concrete indication of the failure of any scheme of health insurance in which the government exercises control. It behooves us to work for our own method of the private practice of medicine is to survive in this country. In reaching toward this goal, we must constantly keep in mind that the medical profession must at all times retain control over the offering of its own services. We dare not turn such an important function over to anyone else. We certainly do not want to turn it over to politicians and bureaucrats. Neither should we turn it over to hospitals and social planners. We must keep medical practice in our own hands if we hope to have any voice in the future of our own profession.

The private practice of medicine must survive if the scientific practice of medicine is to progress. We can hope for nothing more under political control than an eventually complete domination of medical practice by a group of laymen who are interested more in the preservation and promotion of their own positions than in the health of the public or the progress of scientific medicine.

The upshot of the American medical perspective may be found once more in Heraclitus' assertion that the only thing that doesn't change is change itself. Too long we have maintained a tunnel-vision attitude toward the public need for better medical treatment at a lower cost. May we work toward the development of a plan through which our sons and grandsons may be enabled to enter the practice of medicine under the free enterprise system which will encourage them to work for still further scientific advance.

The last one hundred years have brought about great improvements in the internal relationships of our profession. The old antagonisms and acerbities have for the most part given way to a spirit of tolerance and cooperation. Let us join hands in the same spirit with those outside our profession in creating a new era for people and medicine. As we have learned in our internal relations, let us learn in our association with other fields, the words of Emerson who said:

> Life is too short to waste in critic carp or cynic bark,
> Quarrel or reprimand; 'twill soon be dark;
> Up! Mind thine own aim and God speed the mark.

PSORIASIS, WITH SPECIAL REFERENCE TO ETIOLOGY AND TREATMENT

HARRY MALCOME HEDGE, M.S., M.D., F.A.C.P.
CHICAGO

Since the presentation of my paper on psoriasis at the dedication of the Ward Memorial Building of the Northwestern University Medical School in 1927,[1] in which I emphasized the importance of calcium and calcium regulating substances in the production and treatment of psoriasis, and since the publication in 1931 of my article, "The Blood in Psoriasis"[2], the question of calcium as one of the important factors in the etiology of psoriasis has been repeatedly forced upon my attention. In harmony with that article it is still my opinion that the impoverishment of the protein molecule that is used as a base for skin formation, when impoverished with regard to the calcium element, forms the dominant factor in the production of psoriasis.

In spite of the fact that material has been abundant and the cooperation of the patients in most cases is assured to the full, it seems that we have been trying to remove the scales in place of changing that mode of life or diet that has been the cause of the disease. Our principal problem, as I see it, is that the etiology of this disease is so complicated that we cannot lay down one set of rules to be followed which will produce uniformly good results in therapy.

I contend that diet alone, infection alone, or endocrine imbalance alone will not produce psoriasis. And that is why we have been baffled when we came to our conclusion as to the prob-

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able cause of psoriasis and when put to the test to produce that condition in the laboratory or clinic did not find it to result in the desired end or the production of psoriasis. That these same irregularities may be a very definite factor nevertheless when coupled with other bodily deficits is accepted. The diet may be low in calcium or high in calcium but if the patient has other pathological conditions which make the utilization of that calcium impossible, the disease will flourish. There may be an infection which produces such a condition in the blood as a high uric acid state and this, causing a lowered threshold of calcium excretion, may maintain the disease in a serious condition in spite of all treatment; hence, the seriousness of prognosis in what we call arthropathic psoriasis. There may be an endocrine imbalance in which, due to the lack of function of the parathyroid, adrenal, or the pituitary or possibly other glands whose interrelation causes balance to be established, so in those conditions again the disease shows no favorable results until this irregularity is corrected. In any of these conditions, and many others as well, regardless of how much or in what state the calcium is prescribed, it cannot be utilized and will remain as crude calcium unmetabolized or rapidly excreted to produce no beneficial result in the elimination of the symptoms of the disease.

Allow me at the beginning to state more or less in definite terms what has seemed to be the cause of psoriasis and later to show some of the proofs of these conceptions. (1) Analysis of the blood does not show any appreciable change in calcium content in psoriatics, due to the fact that the blood is the last tissue to change in the pathologic state and so long as calcium is present in the bones, teeth, tissues, and diet, it will be drawn upon to supply the normal balance in the blood stream. (2) Psoriasis appears at places where there is a rich anastomosis of small blood vessels and at such sites first disappears under calcium treatment. (Elbows, knees, frontal hair margin, supra-auricular scalp regions, and lumbar regions.) (3) The threshold of calcium excretion may be lowered by such diseases as arthritis (arthropathic psoriasis) to such an extent as to produce the most intractable and malignant form of the disease. (4) Certain drugs, as Fowler's Solution, which act upon the calcium mobilization have been known for years to produce beneficial results in cases of psoriasis. (5) Stimulation of the thyroid and parathyroids and administration of the extracts of these glands may in many cases result in beneficial effect upon the disease. (6) In chronic hypo-acidity of the stomach calcium cannot be utilized regardless of the amount administered for it requires an acid medium in which to be absorbed and hence may be a factor in the continuation of the symptoms of psoriasis. (7) There are certain components of the diet (fat) which may supplant the calcium particularly when bile is deficient and will lead to loss of calcium as calcium soap in the stools. Also if the diet contains a relatively large amount of oxalic acid the absorption of calcium will be deferred. Further, if there is a dietary imbalance of calcium and phosphorus without adequate amounts of vitamin D, calcium may again be lost. (8) Deficiency of endocrine, especially the thyroid and parathyroid which may be indicated by a low BMR, will when checked also show a high cholesterol blood content and many psoriatics will also show this high cholesterol blood.[3] (9) The seasonal incidence also confirms our belief for when there is more ultraviolet light in the normal atmosphere and thus more calcium mobility produced there is less psoriasis as seen in the summer and winter respectively. (10) Some of our vitamins have been found to be beneficial due to their calcium mobilizing action. (11) Persons under heavy nervous strain due to depressions and financial worries are much more resistant to therapy than persons in normal health, probably due as much to their lack of ability to properly digest and utilized food and hence appropriate the calcium in the normal diet.

Let me state, then, that psoriasis is not due to any one factor but is a result of a symptom complex with calcium deficiency as its foundation and with this in mind we can search the patient, correcting such errors of diet and manners of living, or such pathological existing conditions as may hinder the proper utilization of the calcium intake so that these protein molecule "X" units may be built up and placed back on a state of healthy function.

Let me now take my eleven points and make them a little more clear and less empiric.

(1) The blood does not show early changes in calcium. As I showed in my article in the[2] Archives of Dermatology and Syphilology of

August, 1931, in the analysis of over 500 bloods from more than 150 patients there was a very small number that did not fall within the normal range. We also know that during lactation of pregnancy and childbirth the blood will show very little variation in calcium content but that it does make a special effort to draw more freely at this time upon the reservoirs of the body to supply the calcium as needed for the blood stream.

(2) The natural distribution of psoriasis is first the elbows, knees, frontal hair margin, parietal scalp regions, and lumbar regions, and these are the locations of the rich anastomosis of the small blood vessels arising from the larger blood vessels above and below these sites. According to G. DeTakets[4] three per cent of all cases of varicose veins have psoriasis, and the lesions are usually unilateral selecting the side of the varicosities or increased blood supply.

(3) According to Frank Smithies, M.D., Chicago,[5] in arthritic patients and those afflicted with arthropathic psoriasis a rise in uric acid in the blood is often found. This occurs also in other chronic inflammatory lesions of the liver and biliary tract which prevent the normal excretion of bile with an increase of urea and nitrogen. When this rise takes place the threshold of calcium excretion is so lowered that no matter how much calcium may be taken in the diet or by medication there is no retention as the dam has been washed away and the mineral flows out before it has a chance to be absorbed.

(4) For generations past Fowler's Solution — Liquor Potassii Arsenitis — was used indiscriminately by the physician because it was known that a large percentage of cases of psoriasis would benefit by the administration of this drug. It was not known until some laboratory investigation gave light to the point that the arsenic in this form was a calcium mobilizer. If Fowler's[6] Solution is given to half a litter of rabbits or guinea pigs and the other members of the same litter be kept upon the same diet minus the Fowler's Solution for a period of three months it will be found that those upon the arsenic had gained almost one-third more in weight than those without the arsenic. This was thought to be due to the tonic effect of the drug until autopsies proved that it was not an increase of fat or muscle but an increase of calcium in the long bones that had been utilized that caused the increase of weight. Again we see the drug so frequently used for therapeutic purposes in psoriasis produces its effect by its action as a calcium mobilizer.

(5) X-ray stimulation of the parathyroids has been used by Brock[7], Foerster[8] and others with beneficial effects upon the utilization of calcium within the body.

(6) According to a report made at the[9] Mayo Clinic in the study of nearly 3000 consecutive patients regarding the normal acidity of the stomach, Vanzant found that in the two months of November and February there was a low ebb of gastric acidity. These months correspond to the months of greatest incidence of psoriasis. When there is a hypo-acidity the calcium of the normal intake in the diet cannot be so successfully used by the body as when there is normal or slightly hyperacid conditions in the stomach.

(7) As the calcium compounds with amino acids and proteins are unstable and as compounds of fat and protein are much more stable, diets composed largely of fat tend to form a stable compound to the exclusion of the less stable, thus again causing a loss of calcium. When this takes place the molecule so far as the calcium is concerned is impoverished and a psoriasis in one with this form of diet will be more resistant to treatment than after the fat is removed or lessened in the diet.

(8) While there is still a disagreement as to the rise in cholesterol in psoriasis as shown by the disagreement of Rosen, Rosenfeld, and Krasnow[10] and that of Grutz and Burger[11], those cases which show a rise will also show a deficient BMR. With the deficient BMR there is a low functioning thyroid and hence a lack of control for calcium metabolism.

(9) With more ultraviolet light in the atmosphere in summer and less in winter there is respectively less and more psoriasis due to the mobilizing of the calcium in the body as a result of its exposure to the ultraviolet light.

(10) The results that were obtained by Richardson[12] and others (Illinois Medical Journal, June, 1931) in the use of irradiated ergosterol in pregnancy and the side observation made with regard to psoriasis could be interpreted on the basis of calcium mobilization due to the larger doses of the irradiated ergosterol.

(11) While psoriasis has been mistermed the "Disease of the Healthy" we see in those indi-

viduals who had had a light case of psoriasis when times of plenty and contentment were at hand, experienced exacerbations when depression and financial worry came to them and during this exacerbation they were resistant to all forms of treatment until such time as worry and strain upon the sympathetic nervous system (the calcium regulator) became less and function became more normal.

May I then state my belief that psoriasis is not an entity as such but a resulting symptom complex which may be present in many different types of disease and caused by the same fundamental element, namely, the depletion of calcium in the protein molecule that is used for the formation of the cellular structure which goes to make up the integument of the body.

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Minimal, noninfectious cases (of tuberculosis) are private physicians' cases, not sanatorium cases. Indeed, the private practitioner can be a major force in the future control of tuberculosis in the communities of our country if he undertakes to participate in follow-up activities after surveys have been completed. Through his efforts, minimal tuberculosis can be checked and, in individual cases, never become serious. Under the physician's care, needless distress and tragedy can be avoided. As a consequence of his vigilance, the general practitioner can reduce measurably the occurrence of deaths from tuberculosis. Francis J. Weber, M.D., Ohio Pub. Health, Feb., 1948.

COMPLICATIONS OF ARRESTED PULMONARY TUBERCULOSIS

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An arrested case of pulmonary tuberculosis according to Diagnostic Standards is one in which there has been absent for a period of six months constitutional symptoms, positive sputum, and x-ray evidence of open cavity or progression of lesions. Conversely, a case is considered reactivated that presents a recurrence of the symptoms, x-ray and laboratory findings noted above. It is the belief of some clinicians, however, that it is not usually possible to employ hard and fast rules in classification and prognosis. The exceptions, they say, are frequent and baffling. In their experience the amount of sputum in relation to constitutional symptoms, x-ray, and physical findings may guide one in determining the course of the tuberculous disease. A decrease in the amount of sputum coupled with a drop in its bacilli count and a diminution in the quantity of rales show a tendency to arrest of the process. Increase in the amount of sputum associated with a febrile course would indicate an unstable lesion or the development of new lesions. It is the failure of physicians to realize that there are other factors, non-tuberculous or mechanical, that may bring about the persistence of sputum, fever, and rales that has led to the confusion in the designation of arrested and reactivated pulmonary tuberculosis.

There is a growing awareness among specialists in pulmonary diseases that the complications of arrested or "burned-out" pulmonary tuberculosis require special evaluation and careful definitive management. Extensive linear or plate-like scarring, hypertrophic emphysema, suppurative bronchiectasis, and stenotic constrictive bronchitis are the important features of the crippling, post-tuberculous disease. The physiological impairment of respiration and circulation that these complications engender are widespread and, at times, extremely disabling or fatal. A not inconsiderable minority of these cases have shown resolution or fibrotic shrinkage of the parenchymal tuberculous lesions followed by a negative sputum. In course of time their pulmonary and

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Figure 1. H.S. The above film shows nodular and linear fibrotic changes in both lungs, more marked on the left. There are emphysematous blebs on the right side. The flattening of the diaphragm and widening of the rib spaces are indicative of emphysema.

Figure 2. A.B. The above film shows an end-stage caseous pneumonic process of the right upper lobe. The hyperillumination of the lower lung fields and the flattening of the diaphragms illustrate the extensiveness of his emphysema. Highlights in the right upper lobe were interpreted as bronchiectatic because of the constant absence of tubercle bacilli from the sputum.

Figure 3. A.B. Pathological specimen showing old fibrosis, retraction of right apex with multiple saccular areas interpreted as old bronchiectasis. There are fibrotic strands and stellate scars which represent old areas of tuberculosis. There are no areas of caseation or tuberculous cavities.

circulatory decompensation become more and more evident. Several of these cases that came to post-mortem showed no evidence of active tuberculous lesions, but death could be traced to these sequelae of the arrested tuberculous complications.

Equally important is the need to draw a line between those pulmonary symptoms due possibly to the lighting up of the old tuberculous process and those which are essentially non-tuberculous yet completely overshadow the tuberculous picture. These distinctions have great epidemiological, as well as clinical, importance. Not infrequently a previously recognized arrested case is urgently readmitted to a sanatorium for routine tuberculous care when the more proper management lay in the field of bronchial drainage and antibiotics for the suppurative processes. Other cases of this type are in need of urgent treatment for the bronchopasm and anoxemia associated with the emphysema or diffuse pulmonary fibrosis. The management of the complications of arrested cases that follow collapse therapy, particularly pneumothorax or oleothorax, follows the same rationale. These cases may resume their cough and expectoration following the discontinuation of the collapse therapy and on these grounds may be handled as reactivated lesions. Bronchograms will show that bronchiectasis is the source of the symptoms.

Recognition of the arrested cases, on the other hand, will be delayed and sanatorium care unduly prolonged because cough and sputum persist beyond the six-month period of negative sputum reports. These problems have received much casual mention in the literature, but elucidation has been infrequent. It is the purpose of this paper to present illustrative case histories followed by a discussion of the diagnostic aspects in these cases.

Bronchiectasis is very frequently the cause of repeated colds, bouts of low grade fever, morning expectoration of purulent sputum and occasional hemoptsis. Foul or copious sputum, and clubbed fingers are no longer considered prime requisites for the diagnosis of ectasia. Bronchographic studies with lipiodol should be done whenever possible.

Case 1. H.S., white male, age 57 was first hospitalized for pulmonary tuberculosis at the Municipal Sanitarium in 1929. In 1943 he noted exertional dyspnea and cough. Because of his apathy and depression a neuropsychiatric consultation was requested, and the preliminary diagnosis of a "diffuse cerebral lesion" was made. In February 1945, he

was admitted to Michael Reese Hospital because of increasing dyspnea, cough, expectoration of large amounts of sputum, and marked weight loss. (Figure 1) Bronchography with lipiodol showed cylindrical bronchiectasis. He was treated with penicillin aerosolization and improved considerably. In May 1945, it was felt that the patient's mental symptoms were based on oxygen deficiency. During the latter six months of 1945 he was again placed on routine tuberculous care at Winfield Sanatorium. He was given pneumoperitoneum in an attempt to relieve his emphysema. Much improvement was noted; his dyspnea and cyanosis disappeared, and he became ambulatory. The pneumoperitoneum was discontinued, partly because of abdominal pains, and the patient was discharged. After discontinuing dyspneic and cyanotic. He was then readmitted to the hospital where he remained for 26 days, his intractable dyspnea, cough, and weakness improving but slightly on oxygen therapy and penicillin aerosolization. In view of his anorexia and wasting it was felt that he had a possible G. I. malignancy. G. I. series, however, were negative.

Sputum examinations were repeatedly negative for tubercle bacilli. He again improved after a course of oxygen and penicillin aerosolization and was discharged to his home. On June 19, 1946 he became more severely dyspneic and cyanotic than previously and was readdmitted to the hospital. Diagnoses on admission were: pulmonary tuberculosis, arrested; emphysema; brochiectasis; chronic cor pulmonale, and superimposed acute infection. No evidence of acute pneumonitis, however, was demonstrable on the x-ray films of the chest. He showed only minor improvement on oxygen therapy and penicillin, went gradually downhill, and died on the 27th day following his admission. No postmortem was done.

Case 2. A.B., white male, age 56. This man was first hospitalized in 1932 for excision of fistula-in-ano which had been productive of symptoms during the preceding six years. For a period of 26 months from 1938 to 1940 he had been a patient at the sanatorium where the diagnosis of far-advanced pulmonary tuberculosis was made. He improved on bed rest and graduated activity. Following his discharge he returned to former occupation of salesman and felt well except for slight dyspnea on exertion. Repeated sputum examinations were reported negative for tubercle bacilli. Early in January 1946 he complained of symptoms resembling influenza. Admission diagnosis at another hospital was acute tuberculosis, and for this reason he was discharged within 48 hours. Actually, there was no evidence of acute pulmonary tubeculosis. (Figure 2). He made an apparently good recovery, but his increasing dyspnea and a persistent hacking, non-productive cough made hospitalization again necessary. His course in the hospital was marked by further increase in dyspnea and cyanosis, relieved temporarily by oxygen inhalation. On the third day of his stay, he exhibited Jacksonian tremors of the right arm and mental dullness. Embolic phenomena to the brain were suspected. On the fifth day there were involuntary, gross, purposeless movements of all extremities while at rest. Neurological examination revealed no evidence of a space-taking lesion or meningeal reaction. On the following day he was found disoriented and suffering from impairment of memory for recent events. He was again seen by the NP consultant who stated that the psychosis and clonic movements were related to hyperventilation. On the eleventh day of his hospital stay, patient died suddenly.

Postmortem examination showed extensive scarring and fibrosis of both upper lobes with diffuse bronchiectasis and large bronchiectatic cavities. (Figure 3) There was no evidence of active tuberculosis. Bronchopneumonia was present in the left upper lobe and pulmonary emphysema was diffuse. There was hypertrophy of the right ventricle of the heart and atheromatosis of major pulmonary arteries. The brain showed petechial hemorrhages in the pons.

In both of the foregoing cases, the tuberculous process in the lungs as observed clinically and in the x-rays became stationary. No acute spreads had occurred. Sputum remained persistently negative for tubercle bacilli. The sequelae, however, became of greater clinical importance than the basic disease process. Emphysema bronchiectasis and cor pulmonale, and not the pulmonary tuberculosis, caused the permanent disability. The physiological disabilities were also outstanding. Mental depression, Jacksonian tremors, anorexia, and marked wasting were without doubt associated with the severe anoxia. Temporary improvement in both cases followed the use of non-specific lines of therapy: penicillin aerosol for the purulent bronchiectasis and bronchitis, pneumoperitoneum to improve diaphragmatic action and vital capacity, and oxygen-inhalation therapy for the anoxemia. The cause of death, as well as the symptomatology, in both instances was pulmonary decompensation rather than activation of the pulmonary tuberculosis.

The following case illustrates the development of bronchiectasis in a case of tuberculosis. It also demonstrates how residual symptoms of cough and expectoration may be mistakenly interpreted as reactivation of the tuberculous lesion. The designation of arrested tuberculosis was delayed; whereas, early recognition with the aid of lipodol studies would have removed the case from the active file.

Case 3. S.K., white female, age 42. A diagnosis of pulmonary tuberculosis was first made in this



Figure 4. S.K. X-ray film shows presence of oleothorax in the left chest with partial collapse of left lung.



Figure 5. S.K. The above film shows cylindrical and saccular dilatation of the lingula division of the left upper lobe and bronchi of the left lower lobe.

case in 1932. Sputum was positive for tubercle bacilli. In April 1933 a left pneumothorax was instituted. It was discontinued in 1934 because of fluid. During the following year and a half several aspirations of fluid were performed followed by five refills to establish an oleothorax. Sputum conversion had occurred late in 1933 and remained negative. In August 1936 she had an hemoptysis and was readmitted to the sanatorium, remaining 9 months. During this time all sputum examinations were negative for tubercle bacilli. X-ray film of the chest in 1940 (Figure 4) showed presence of oleothorax in the left chest with partial collapse of left lung.

In January 1945 she was admitted to Michael Reese Hospital because of a history of recurrent bouts of cough and purulent sputum associated with upper respiratory infections. Bronchography with lipiodol showed bronchiectasis and purulent bronchitis in the fibrotic lung (Figure 5). She responded poorly to postural drainage and expectorants, but excellently to oral sulfathiazole and penicillin aerosol. Cough and expectoration ceased, and lung field appeared clearer.

Hemoptysis in cases of reexpanded pneumothorax or in post-thoracoplasty offers a problem in differential diagnosis of major importance. It is usually felt that the most likely source of the bleeding originates from a new tuberculous focus or the reopening of an old, apparently arrested focus. Much time elapsed in this case before a diagnosis of bronchiectasis and purulent bronchitis was made and the bouts of hemoptysis related to it. Pneumothorax or oleothorax was not the direct cause of the bronchial disease. The fundamental process was due to bronchial obstruction followed by consolidation which in turn was followed by cavitation and bronchial damage. Had lipiodol studies been done prior to the institution of the pneumothorax, bronchiectatic changes would have been evident even then.

The symptoms of pulmonary emphysema are chronic cough which is frequently paroxysmal, expectoration of viscid, thick sputum, wheezing, expiratory dyspnea, and cyanosis. The chest shows a hyperresonant percussion note, and on auscultation the expiratory phase of the breath sound is prolonged, and there are sibilant or sonorous rales or ronchi. The x-ray film shows transverse ribs and widened rib spaces, increased translucency of the lungs, flattened and lowered diaphragmatic leaves, and a small narrow heart.

Case 4. B.L. This 63 year old white male first came under observation for pulmonary tuberculosis in September 1936 when an x-ray of the chest and sputum examination were positive. Following his discharge from the sanatorium in December 1937 he returned to his occupation of horse trading, and remained asymptomatic during the next 3 years. Late in 1940 he sustained an injury to his knee and



Figure 6. B.L. This film demonstrates the hard, nodular and fibrotic lesions of the left lung and upper portion of the right lung. There is marked flattening of the diaphragms, hyperillumination of the lower two-thirds of the right lung and base of the left lung with distortion of the cardiac shadow.



Figure 7. B.W. The above film taken in 1943 shows bilateral upper lobe infiltration, essentially productive.

upon recovery began to note dyspnea on exertion. This increased progressively so that for several months prior to readmission in December of 1944 he was unable to walk even short distances. Cough and expectoration had been minimal, but anorexia and weight loss of 23 pounds had occurred between 1938 and 1944. X-ray on admission in 1944 showed bronchiectasis, bronchitis, and emphysema in addition to tuberculosis (Figure 6).

In April 1945 it was felt that his improvement and negative sputum indicated early discharge from the sanatorium. He was able to tolerate eight hours of exercise. In September 1945, however, he complained of recurrent dyspnea on exertion and occasional spells of vomiting. Continued sanatorium care was required. In February 1946 he was placed on penicillin inhalation because of an acute episode of productive cough which was felt to be on a bronchiectatic basis. Marked improvement followed. In August 1946 following a regime of oxygen inhalation three times daily, postural drainage at bedtime, and aminophyllin there was some improvement in his dyspnea, orthopnea, and wheezing. A gain of weight also occurred. Sputum has been negative on concentration for the past 5 months. At present he is completely incapacitated and will require continued sanatorium supervision.

Case 5. B.W., white male, age 61. This patient was admitted to the sanatorium in April 1945 with a history of cough of 15 years duration. Five years prior to admission he noted marked weakness, and four years prior to admission the diagnosis of pulmonary tuberculosis was made following an episode of blood-spitting. In January 1945 his weakness and exertional dyspnea had increased to the point where it became necessary to give up his job. In February 1945 another episode of hemoptysis led to his hospitalization for the first time and subsequent transfer to the sanatorium.

On admission his x-ray showed fine nodular lesions in both upper lung fields, suggestive of hematogenous tuberculosis (Figure 7). Investigation of the genito-urinary system and spine failed to show evidence of an extrapulmonary lesion. Brochograms with lipiodol on December 1, 1945 showed bronchial infection on both sides with a moderate amount of cylindrical bronchiectasis on the left. The left main bronchus and that to the left lower lobe were angulated, indicating a retraction of the upper lobe on that side (Figure 8). Sputum has been persistently negative for tubercle bacilli, including a specimen collected on a laryngeal mirror. Penicillin aerosol was given with some improvement. In October 1946 increasingly progressive dyspnea was noted on slight exertion and following cough (Figure 9). Oxygen inhalation, aminophyllin, ephedrine, and vaponefrin gave some relief. At present he is markedly incapacitated and will require continued sanatorium supervision.



Figure 8. B.W. Bronchography shows moderate cylindrical dilatation of the bronchi of the lower lobes, especially on the right side.

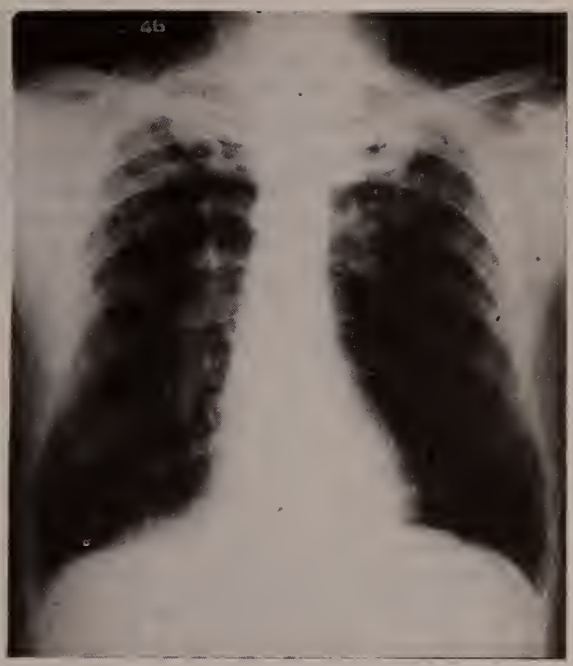


Figure 9. B.W. This film taken in 1946 shows no evidence of progression of lesions in the preceding three years. There has been, however, marked increase in emphyseatous changes.



Figure 10. H.G. The above film shows a fairly well circumscribed density in the right upper lobe that is typical of old caseous pneumonic tuberculosis. There is minimal infiltration in the left upper lobe.



Figure 11. H.G. The above film shows the progression and enlargement of the right upper lobe density. Patient had had several hemoptysis prior to the time this film was taken.

In these cases there is a long-standing history of chronic cough and expectoration. The diagnosis of pulmonary tuberculosis was made early in one case and late in the other. Sputum had been negative for tubercle bacilli for long periods, and there had been no changes in the pulmonary lesions as seen in the x-ray film. The diagnosis of arrested tuberculosis was indicated in each patient. It is, however, the complications of the tuberculous infection that are of greater clinical importance in these cases. Both have responded excellently to non-specific measures, such as penicillin aerosol, vaponefrin inhalation, postural drainage, oxygen inhalation, and aminophyllin. Sanatorium care is no longer necessary from a public health standpoint or for the treatment of the tuberculous disease. Therapeutic management, nevertheless, would be extremely difficult at home in view of the frequent urgent needs of symptomatic therapy. General hospitals are very reluctant to admit this type of case once a tuberculous label has been attached. There is an urgent need for a better understanding of the therapeutic problems involved as well as use of the greater number of avenues of management available in a general hospital as compared to a sanatorium.

The early diagnosis of bronchogenic carcinoma should be based on a persistent dry, hacking cough, pain in the chest, and occasional hemoptysis in an individual past the age of 40. Dyspnea. loss of weight and strength are usually late findings.

Case 6. H.G., white male, fifty years of age. This patient had a known tuberculous history for some years prior to May 1944. An x-ray of the chest had shown parenchymal infiltration in both upper lobes, more marked on the right (Figure 10). In May 1944 he noted cough and expectoration of bloody sputum. Sputum was positive for tubercle bacilli.

He was admitted to the sanatorium where pneumothorax was instituted on the right side, but this failed to control his blood spitting. Neoplasm, complicating tuberculosis, was suspected. Bronchoscopy on July 1, 1944 showed no evidence of tumor, but blood was seen coming from the right upper lobe bronchus. A punch biopsy from the right upper lobe failed to reveal tumor cells, but one tubercle bacillus was seen. He was returned to the sanatorium where he continued to complain of coughing spells during which he expelled "tissue and red or black blood". His episodes of blood spitting increased to twelve times daily. (Figure 11) Tumor was still suspected, and bronchoscopy was repeated



Figure 12. H.G. Pathological specimen showing only a little normal lung tissue. There is extensive areas of carcinoma, and superiorly to this are multiple small caseous foci some of which represent definite cavities. These are areas of active tuberculous disease.

on October 9, 1944 in the presence of a good collapse of the right lung. No neoplasm or ulceration was encountered and no biopsy specimen was obtained. Exploratory thoractomy was done several days later and revealed a hard mass in the right upper lobe. Pneumonectomy was begun, but the patient expired on the operating table. Postmortem showed old, fibrous tuberculosis in the left upper lobe accompanied by severe brochiectasis. In the right upper lobe there was a bronchogenic, transitional cell carcinoma with much necrosis and tuberculous caseous foci. (Figure 12) Calcified tuberculosis of the lymph nodes was found.

This case illustrates the need to re-emphasize that tuberculosis and cancer are not mutually exclusive in the lung. That carcinoma of a bronchus may invade a contiguous tuberculous cavity has been well established by repeated x-ray and pathological studies. Hemoptysis in this case was the outstanding symptom. It was felt that it originated from the tuberculous cavity visualized in the x-ray. An adequate pneumothorax collapse, however, failed to control the repeated blood spitting. Such a failure should

always increase the suspicion of an associated malignant process. A punch biopsy was done after repeated bronchoscopic examinations failed to uncover the bronchial tumor. It is interesting that a single tubercle bacillis was recovered by this investigation; whereas, several previous examinations had been negative. The final diagnosis of bronchogenic carcinoma of the transitional cell-variety was made at the time of the exploratory thoracotomy.

COMMENT

There has been a growing realization during the past several years of the need for re-evaluation of the pulmonary complications of a tuberculous and non-tuberculous nature in pulmonary tuberculosis. This is particularly important in patients whose tuberculosis is arrested or stationary. Many of these patients are negative sputum cases while many more are positive. They present difficult therapeutic problems; and, more important, their admission to sanatoria because of their pulmonary symptoms is generally considered urgent, often displacing cases with lesions more amenable to sanatorium care. The feasibility of providing care for the type of case whose symptomatology has a non-tuberculous basis in our general hospitals under simple isolation technics has been stressed in this paper.

Although bronchiectasis complicating tuberculosis has long been recognized as a relatively benign condition, several important studies by Dormer et al and Rilance have pointed out that in not an inconsiderable proportion a severe form of bronchiectasis co-exists. Boyer states that in a series of 50 cases studied by him, bronchiectasis was seen in 85% of the fibroid, 36% of the fibrocaseous, and none in the exudative. Many of these have been unrecognized, and the bouts of fever, cough, increased sputum or hemoptysis have usually been labeled as reactivation of the tuberculous lesion in the face of repeatedly negative sputum studies.

X-ray studies showed no changes in the tuberculous lesions from year to year. In Rilance's group five of the cases died of bronchial suppuration or of the complications such as non-tuberculous abscesses in the brain, liver, or kidneys. There is a need for lipiodol studies in every case of arrested tuberculosis with a negative sputum and a persistence of cough and expectoration or bouts of cough, expectoration, and malaise. Foul sputum and clubbed fingers are not an essential part of bronchiectasis. The concept of bronchiectasis as a long-standing chronic disease repeatedly found in our text books also cries for revision. Bronchiectasis is frequently an acute or subacute process of three to six months duration and requires active therapy.

Emphysema is closely allied etiologically to atelectasis, bronchiectasis, and pulmonary cavitation. In tuberculosis we have the basic factors of chronic bronchial obstruction, infection, and frequently bronchospasm. This obstruction can readily be demonstrated with lipiodol studies. Progressive trapping of air within the alveoli occurs followed by increasing distension and loss of elasticity. These sequelae are a direct result of a ball-valve mechanism in the bronchioli and alveolar ducts as has been demonstrated by Christie in experimental and clinical studies. Chronic cough adds abnormal stresses and strains to the alveolar walls as does the degenerative changes associated with the aging process and the fibrosis associated with inflammation. Treatment, especially oxygen inhalation, may possibly delay the further progress of the condition by preventing distension of the alveoli and consequent atrophy of the alveolar epithelium. The symptoms of emphysema, namely cough, wheezing, and dyspnea are usually assigned erroneously to the underlying tuberculous lesions. In several of our cases it was the disability associated with the emphysema that first brought the patient to the physician and led to the diagnosis of tuberculosis. The management of emphysema in the tuberculous is essentially the same as in the non-tuberculous. They may be cared for at home or in a general hospital where facilities for oxygen therapy and penicillin or streptomycin aerosol and bronchodilators are available.

The arrested case of pulmonary tuberculosis thus clearly shows the need for observation and management during his entire lifetime. His dismissal at the end of a short period of sanatorium care with the frequent recommendation "There is nothing to worry about" is as reprehensible as the same advice would be to a case of early or minimal lesion.

SUMMARY

The pulmonary complications of pulmonary tuberculosis, — empysema, bronchiectasis, and bronchogenic carcinoma have been discussed.

These complications raise diagnostic and prognostic difficulties, particularly in arrested cases of pulmonary tuberculosis. The need for lifetime management of the arrested case received particular emphasis. The feasibility of treating this type of case in a general hospital under simple isolation technics was also pointed out.

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THEPHORIN A NEW ANTIHISTAMINIC

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The pharmacology of Thephorin, brand of phenindamine (2-methyl-9-phenyl-tetrahydro-1-pyridindene) was first reported by Lehmann et al[1] and preliminary reports on its clinical use have been presented by Davis and Mowry[2] and by Reynolds and Horton[3]. Its chemical structure differs from that of the other antihistaminics, and clinical reports[2,3] show a low incidence of toxic side reactions.

This paper describes our clinical experience in 142 cases. Thephorin was supplied to us* as sugar coated tablets, containing 25 mg. each and as a syrup, having 10 mg. per 4 cc teaspoon.

TABLE 1
Clinical results with Thephorin in hayfever

NO.	AGE	SEX	DOSE (mg)†	TIME OF THERAPY (weeks)	RESULTS	SIDE REACTIONS
1	3	M	10 t.i.d.	4	Good	None
2	5	F	10 b.i.d.	3	Good	None
3	5	M	10 b.i.d.	2	Good	None
4	6	F	10 b.i.d.	4	Good	None
5	6	F	10 b.i.d.	6	Good	None
6	14	F	25 t.i.d.	4	Good	None
7	15	F	25 t.i.d.	1	Failed	Gastric upset Insomnia
8	15	F	25 b.i.d.	4	Good	None
9	16	F	25 b.i.d.	4	Good	None
10	15	F	25 t.i.d.	4	Good	None
11	11	M	25 t.i.d.	2	Good	None
12	16	M	25 b.i.d.	6	Good	None
13	17	M	25 t.i.d.	3	Good	None
14	19	M	25 t.i.d.	8	Good	None
15	18	M	25/day	3	Good	None
16	11	M	25 p.r.n.	4	Good	None
17	15	F	25/day	3	Good	None
18	15	F	25 t.i.d.	2	Relief Partial	None
19	19	M	25 b.i.d.	4	Good	None
20	17	F	25 b.i.d.	4	Good	None
21	19	F	25/day	4	Good	None
22	15	M	25 t.i.d.	4	Good	None
23	14	F	25/day	4	Good	None
24	16	F	25 t.i.d.	6	Good	None
25	13	F	25 b.i.d.	6	Good	None
26	10	F	25 b.i.d.	6	Good	None
27	16	F	25 b.i.d.	4	Fair	None
28	10	M	25 t.i.d.	3	Good	None
29	12	F	25 b.i.d.	4	Good	None
30	15	F	25 b.i.d.	4	Good	None
31	25	F	25 t.i.d.	3	Good	None

†doses in multiples of 10 mg were given as Syrup Thephorin, all other doses were 25 mg tablets.

*Supplied by Hoffmann-La Roche, Inc., Nutley, New Jersey. Trade Mark Reg. U. S. Pat. Off.

Hayfever. Table 1 outlines the results obtained in 68 cases of hayfever. Thephorin was effective in 97% of these patients. There were 2 failures. The first of these failures (No. 7) was accompanied by insomnia and gastric distress. The second failure (No. 67) did not suffer any side reactions:

Hayfever and Asthma. Table 2 outlines the results obtained with 34 cases of hayfever and asthma. Thephorin was effective in controlling the symptoms of 91% of the patients suffering from both hayfever and asthma. There were 3 failures in this group. The first failure (No. 76) had side reactions of vomiting and hematuria. This patient had received 75 mg. Thephorin for one day only. The drug was discontinued and we were unable to determine if the hematuria was a true side reaction. None of the other 142 cases, some of whom received twice the dose given to case No. 76, had hematuria.

The second failure in this group (No. 91) experienced profuse sweating after taking 50 mg.

TABLE 1 (Continued)
Clinical results with Thephorin in hayfever

NO.	AGE	SEX	DOSE (mg)†	TIME OF THERAPY (weeks)	RESULTS	SIDE REACTIONS
32	25	F	25 t.i.d.	4	Good	None
33	26	F	25 t.i.d.	4	Good	None
34	23	M	50 t.i.d.	4	Good	None
35	26	F	25 t.i.d.	2	Good	None
36	22	F	25 t.i.d.	6	Good	Felt sick on first day only
37	21	F	25 t.i.d.	4	Good	None
38	29	M	25/day	4	Good	None
39	22	M	25 t.i.d.	4	Good	None
40	24	M	25 t.i.d.	8	Good	None
41	26	M	25 t.i.d.	2	Good	None
42	28	M	25 t.i.d.	6	Partial relief	None
43	28	F	25 b.i.d.	4	Good	None
44	34	F	25 b.i.d.	4	Good	None
45	32	F	25 b.i.d.	3	Good	None
46	35	F	25/day	4	Good	Felt "tired"
47	33	F	25 p.r.n.	3	Good	None
48	36	F	25 t.i.d.	2	Good	Sweating for ½ hr.
49	33	M	25-50 p.r.n.	4	Good	None
50	36	M	25 b.i.d.	2	Good	Gastric upset, insomnia
51	37	F	25 t.i.d.	4	Good	None
52	30	F	25 b.i.d.	6	Good	None
53	36	F	25 t.i.d.	4	Good	None
54	45	F	25 b.i.d.	6	Good	None
55	40	M	25 b.i.d.	5	Good	None
56	46	F	25 b.i.d.	6	Good	None
57	44	M	25 p.r.n.	4	Good	None
58	45	F	25/day	3	Good	None
59	44	F	25 t.i.d.	6	Good	None
60	48	F	25 b.i.d.	4	Good	None
61	46	M	25 t.i.d.	6	Good	None
62	40	M	25 t.i.d.	4	Good	None
63	48	M	50 t.i.d.	4	Good for first 3 wks.	None
64	50	F	25 t.i.d.	4	Good	None
65	53	F	25 t.i.d.	6	Good	None
66	50	M	25 t.i.d.	3	Good	None
67	58	M	25 t.i.d.	4	Failed	None
68	63	M	50 t.i.d.	6	Good	None

TABLE 2
Clinical results with Thephorin in hayfever and asthma

NO.	AGE	SEX	DOSE (mg)*	TIME OF THERAPY (weeks)	RESULTS	SIDE REACTIONS
69	6	F	10 t.i.d.	6	Good	None
70	7	M	25 t.i.d.	8	Good	None
71	10	M	25 t.i.d.	3	Good	None
72	13	M	10 t.i.d.	4	Good	None
73	14	M	25 b.i.d.	3	Good	None
74	13	M	25 t.i.d.	2	Good	None
75	20	M	25 b.i.d.	4	Good	None
76	21	F	25 t.i.d.	1 day	Failed	Vomiting Hematuria
77	24	M	25 t.i.d.	3	Good	None
78	26	F	25 t.i.d.	6	Good	Nervous Sleepy
79	28	M	25 b.i.d.	2	Good	None
80	30	F	25 b.i.d.	4	Good	Anorexia
81	31	M	25 b.i.d.	8	Good	None
82	30	F	25 b.i.d.	4	Good	None
83	34	F	25 p.r.n.	4	Good	None
84	35	F	25 t.i.d.	8	Good	None
85	40	M	25 t.i.d.	8	Good	None
86	44	M	25 t.i.d.	4	Good	Jittery
87	46	F	25-50/day	3	Good	None
88	46	M	25 t.i.d.	4	Good	None
89	47	M	25 t.i.d.	3	Fair	None
90	47	F	25 t.i.d.	2	Fair	None
91	48	M	50 p.r.n.	2 days	Failed	Profuse sweating
92	50	M	25 t.i.d.	3	Good	Frequent urination
93	51	M	25 q.i.d.	4	Good	None
94	52	M	25 b.i.d.	4	Good	None
95	60	M	25 p.r.n.	4	Good	None
96	6	M	10 b.i.d.	3	Good	None
97	8	M	25 t.i.d.	3	Good	None
98	14	F	25 t.i.d.	6	Good first 4 weeks	None
99	20	M	25-50/day	6	Good	None
100	32	M	25 t.i.d.	1	Failed	None
101	32	M	25 t.i.d.	1	Good	None
102	46	F	25 t.i.d.	4	Good	None

*doses in multiples of 10 mg were given as Syrup Thephorin, all other doses were 25 mg tablets.

The drug was discontinued after 2 days. The third failure (No. 100) used 75 mg. daily for one week with no relief or side effects.

Asthma. Table 3 presents our results in 16 cases of asthma. Of these cases, 7 were bronchial asthma (No. 106-112); 3 were pollen and grass asthma (No. 113-115); 3 were grass asthma (No. 116-118) and there was one case (No. 119) of pollen and dust asthma.

Treatment was effective in 75% of all cases of asthma. All of the failures occurred in bronchial asthma. The drug was 100% effective in pollen and grass asthma. None of the patients with asthma experienced any side reaction. The effectiveness in case No. 104 is of particular interest since this child, two and one half years of age. received 10 mg. of syrup daily for three weeks with good results and no sign of any side reaction.

Vasomotor Rhinitis. Thephorin was used in 10 cases of dust vasomotor rhinitis and was effective in eight cases. Some patients reported relief in 15-20 minutes after taking the drug. The dosage used was 25 mg. two or three times a day. While one of the two failures had no side reaction, the other experienced insomnia.

Dermatitis. Thephorin gave good results in 9 of 10 cases of various types of dermatitis. The

TABLE 3
Clinical results with Thephorin in Asthma

NO.	AGE	SEX	DOSE (mg)*	TIME OF THERAPY (weeks)	RESULTS	SIDE REACTIONS
104	2½	M	10 t.i.d.	3	Good	None
105	8	M	10 t.i.d.	2	Good	None
106	40	F	25 t.i.d.	4	Good	None
107	43	F	25 t.i.d.	3	Failed	None
108	46	M	25 t.i.d.	4	Good for 3 weeks	None
109	56	M	50 t.i.d.	3	Failed	None
110	63	M	25 t.i.d.	3	Failed	None
111	63	F	25 t.i.d.	12	Good	None
112	63	M	25 t.i.d.	8	Failed	None
113	15	M	25 t.i.d.	3	Good	None
114	27	F	25-50/day	8	Good	None
115	34	F	25 t.i.d.	3	Good	None
116	11	F	25 b.i.d.	5	Good	None
117	18	F	50-75/day	8	Good	None
118	34	F	25 p.r.n.	3	Good	None
119	38	M	25 t.i.d.	8	Good	None

*doses in multiples of 10 mg were given as Syrup Thephorin, all other doses were 25 mg tablets.

only failure was in a case of chronic urticaria. This patient received 75 mg. daily for 4 weeks without any benefit or side reactions.

Other conditions. Two cases of migraine headache were studied. One patient used but one 25 mg. tablet, experienced no relief and complained of numbness in the extremities. The other patient took 50 mg. as needed for 4 weeks and had a fair response with no side reactions. One case of sinusitis took 25 mg. twice daily for 16 weeks with a good response and no side reactions. Hayfever and dermatitis occurring simultaneously in one case, gave a good response with no side effects to 25 or 50 mg. per day.

Discussion: Of 142 patients treated, beneficial results were obtained in 129 cases, or almost 91%. While it is not expected that this high degree of effectiveness will be found in all forms of allergy, it is indisputable that in this group of unselected cases, the drug has demonstrated its value as an antihistaminic. Its relative freedom from side effects is of at least equal importance. An analysis of the side reactions observed are listed as follows, (the number after each symptom indicates the number of cases.):

Gastric disturbance 5
Insomnia 3
Nervous or jittery feeling 2
Sweating 2
Fatigue 1
Sleepiness 1
Anorexia 1
Hematuria 1
Frequency of urination 1
Dyspnea 1
Numbness of extremities 1

These symptoms were seen in a total of 15 patients, this is approximately 11% of all cases. Thephorin, with an incidence of side reactions of only 11% compare favorably with the other antihistaminics. Feinberg[4] reported that "more than half of the patients taking 50 mg. doses of Benadryl complained of untoward effects the side reactions from Pyribenzamine occur in less than 25% of the patients". The figure of 11% for side reactions is a true indication of the low toxicity of Thephorin, for in only 5 cases were these symptoms severe enough to cause the discontinuation of therapy. We can, therefore, say that of 142 cases, only 3.5% had to stop using it because of side reactions.

Summary

1. A report on the use of Thephorin in the treatment of 142 cases of allergy has been presented.
2. Thephorin was 97% effective in relieving the symptoms of hayfever and 91% effective in the treatment of hayfever and asthma.
3. Thephorin was of definite value in the treatment of asthma, dermatitis, vasomotor rhinitis and other conditions due to allergy.

4. The most common side reactions observed were gastric disturbance and insomnia.
5. The incidence of side reactions to Thephorin was 11%, but only 3.5% of all cases had to discontinue the drug because of side effects.

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TULAREMIA AND UNDULANT FEVER TREATED WITH ATABRINE

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The purpose of this report is to make known some favorable results obtained in the treatment of tularemia (*Pasteurellus tularensis*) and undulant fever (*Brucellus abortus*) with the drug atabrine dihydrochloride. This drug was used after other treatments had failed. It has thus far given positive results for both diseases in every case in which it was used by the senior author. Although the number of cases subjected to the drug has been small, the findings seem significant enough to be reported here. To our knowledge this is the first report of the use of atabrine to combat either of these pathogenes.

TULAREMIA

Case I: — Mrs. H., age 65, came for treatment in November, 1943. At the time of examination by the senior author, Mrs. H. was suffering with fever and chills. She had an ulcer on her right thumb, and the lymph gland under her right arm was considerably enlarged and very tender. These symptoms strongly suggested a case of ulcero-glandular tularemia.

The history of the case revealed that Mrs. H. had consulted another physician when she first became ill. For two weeks the other physician treated her for the "flu," but she did not respond to treatment (treatment unknown). Further inquiry brought out some important facts: She had dressed some freshly killed wild rabbits (cottontails) about three weeks previously — about a week before her illness started. Two or three days after she had dressed the rabbits, a primary papule developed on the right thumb. This papule would not heal and developed into the persistent ulcer noted above. The lymph gland had become enlarged soon after the papule started "growing" and was as persistent as the ulcer. It was at the time when the papule started to enlarge — about the fourth day — that the first chill was experienced.

With the above chain of events known and with the characteristic tularemia symptoms present, there could be little doubt that Mrs. H. had a case of ulcero-glandular tularemia.

A supply of 1.5 grain atabrine tablets was given to her with instructions to take one tablet three times daily for five days. At the end of the fifth day, Mrs. H. reported back for examination. She said that the chills and fever had left on the second day with no recurrence. Examination showed lymph glands were normal and the ulcer was nearly healed, with no infection evident. She has had no recurrence of the symptoms since.

Cases II, III, and IV: — Mrs. K., age 40, and her two children, ages 9 and 12, came to the office together in December of 1944. All three patients had the specific symptoms of ulcero-glandular tularemia — ulcers on their hands, lymph gland swellings, fever, and chills. Again the history confirmed the suspicion of tularemia.

Two weeks previous to examination, Mrs. K. had dressed some cottontail rabbits which her husband had shot. The children assisted in cleaning and skinning the rabbits. No protective measures (use of rubber gloves, etc.) were taken. Inside of a week's time all three had developed primary papules on their hands. The papules persisted and enlarged into ulcers. As the ulcers formed, the lymph glands closest to the respective ulcers became enlarged and tender. In each case chills and fever ensued soon after the primary papules started to enlarge.

The same treatment as above was prescribed — three 1.5 grain atabrine tablets daily for five days. In addition, iodized salve was given for external application to the ulcers.

The patients later reported that the chills and fever left "immediately" after starting treatment and the ulcers were healed by the sixth day. No further treatment was required.

In the past three years the senior author has had a total of eight patients who showed the typical symptoms of ulcero-glandular tularemia as described above. Every case was traced to the handling of rabbits a few days before. The characteristic chain of symptoms followed. All eight of these cases were treated in the same manner as already described. Without exception, atabrine produced a favorable response within one to three days and not one case required further treatment after the fifth day. In none of these cases has there been a recurrence of symptoms.

The tularemia cases were not confirmed by laboratory tests but it is pointed out that clinical diagnosis of ulcero-grandular tularemia is reasonably accurate, especially when the symptoms can be directly associated with the source of in-

fection. Jackson (1946) points out that from a total of 123 clinical diagnoses of tularemia in Indiana between the years 1942 and 1946 only eight cases gave negative laboratory findings and the remainder (115) were positive.

UNDULANT FEVER

The good results obtained by the senior author in combatting *P. tularensis* with atabrine dihydrochloride prompted him to test the effects of the drug on *B. abortus*. Only four cases of undulant fever have been treated thus far, but the results are very encouraging.

Case I: — Mr. V., age 17, came to the office for examination on or about June 20, 1944, at which time he was having chills and fever, and was malaise. A blood sample was sent to the Illinois State Laboratory of Public Health at Springfield. The physician's report No. 79195 from Springfield dated June 22, 1944, showed typhoid negative, and undulant fever positive in a dilution of 1-160.

This patient gave a history of having had malaria (not confirmed by blood smear test) several years before and having been treated with quinine. No malaria was detected at the time of undulant fever diagnosis. It was learned that the patient's father was in the dairy business and delivered unpasturized milk from a "tested" herd of Guernseys. The patient had regularly drunk the unpasteurized milk.

After making the diagnosis of undulant fever, the State Department of Public Health sent a representative to check the dairy herd. "Bang's disease" was found and the entire herd was destroyed.

After failing to get any favorable results with other treatments, the senior author instructed the patient to take an atabrine tablet morning, noon, and night for five days. The fever left on the third day, and no further treatment was given after the fifth day.

Mr. V. has had no recurrence of symptoms since the "round" of atabrine in 1944. He has had three blood agglutination tests — one at the state laboratory and two in naval laboratories — since 1944, and all three have shown a negative reaction to *B. abortus*. Mr. V. has been a member of the U. S. Marine Corps for the past two years.

Case II: — Mrs. S., age 52, was examined on May 1, 1942. She complained of chills and fever, was malaise, and had painful swellings in the joints. A blood sample was sent to the state laboratory and a positive report of undulant fever in a dilution of 1-160 was returned.

Mrs. S. was questioned as to whether she had ever had malaria or typhoid, to which she answered no. It was learned that several years before she had used unpasteurized milk. From that time until this examination she had been "feeling badly" and had been intermittently attacked with chills and fever.

Atabrine was given for this case in the exact dosage as had been used before. The chills and fever left almost at once and the swellings in the joints subsided on the fourth or fifth day. In the patient's own words she "felt wonderful." A second blood agglutination test sent to the state laboratory at this time was returned as negative to undulant fever.

No recurrence of symptoms was evident until December, 1947, at which time Mrs. S. began to have some chills and fever as before. She reported almost immediately to the office of the senior author. Again atabrine was prescribed, and again the symptoms disappeared in two or three days after start of the atabrine treatment.

An agglutination test returned from the state laboratory on January 1, 1948 (sent in before atabrine treatment started), was positive to undulant fever in a dilution of 1-160. A post treatment test has not been made at the time of this writing, April 8, 1948.

Case III: — Mrs. B. was in the office on or about November 1, 1945. She was having her first attack of chills and fever. A blood sample was immediately sent to the state laboratory to which a return of positive undulant fever in a dilution of 1-160 was returned. The standardized atabrine treatment was given, to which Mrs. B. had a rather slow response. She noted no reaction from the drug until the fifth day of treatment, at which time the fever and chills suddenly subsided. The second blood sample was then sent to the state laboratory and on December 7, 1945, a return of negative undulant fever and negative typhoid was received. Mrs. B. has had no recurrence of symptoms to date.

Case IV: — Man, age 34, in dairy business, came to the office with chills and fever. He was very malaise. Clinical diagnosis was undulant fever, but no agglutination test was made. He was given a supply of atabrine and the proper directions for its use. Since the man never returned for a "check-up" it is presumed that the atabrine accomplished the cure.

As the facts in this case are rather obscure, we must consider it as doubtful. It is mentioned because the man's contact with cattle suggests the possibility of undulant fever.

SUMMARY

All of the above cited cases of tularemia and undulant fever were examined and treated in the senior author's office, and the facts of each case were carefully recorded because of their apparent significance. None of the patients was able to afford streptomycine nor was the drug available in most cases. Experimentation with atabrine has given us very favorable results in all cases of tularemia and undulant fever in which it was used. It is now a question of whether this treatment will give positive results when extensively used. It is our hope in offering this article for publication that more cases of tularemia and undulant fever will be treated with atabrine in an effort to establish the exact value of the drug as a combatant of these two pathogenes.

CONCLUSIONS

Eight cases of tularemia (*P. tularensis*) and four cases (three positive and one doubtful) of undulant fever (*B. abortus*) have been successfully treated with atabrine dihydrochloride. A recurrence of symptoms has occurred in none of the tularemia cases, and only one recurrence of undulant fever was noted — this after an interval of nearly five years. The treatment was one 1.5 grain atabrine tablet three times daily for a total of five days.

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ORGANIZATION OF A BLOOD BANK

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CHICAGO

Before discussing a blood bank for a modern hospital and the organization of such a blood bank, I think it would be worth reviewing some of the scientific discoveries and advances in this field in the past decade. A great deal of work has been done on many aspects dealing with blood, and I want to touch on some of the highlights that have resulted in changes in handling blood for the patient. I want to bring out the important things that make a bank practical and help to make blood transfusion a safe procedure, and then I shall discuss the organization of a blood bank.

First, experimental work and clinical studies dealing with the loss of blood and fluids that leads to anoxia and shock have established two outstanding facts. One is the value of quantitative blood replacement, and in severe hemorrhage with shock a great deal of blood is required. This was shown in many experimental studies on animals and certainly was confirmed by a vast experience during the war in which extensive blood transfusion permitted a type of surgery which ten years ago would have been impossible. The second important thing is the necessity for speed. Rapid and extensive loss of blood leads to anoxia of the tissues. Shock may develop very rapidly, and if it becomes irreversible no amount of blood will be of help. So, in our present concept of utilizing blood, we have two important considerations: (1) to have enough blood available to replace what the patient has lost, and (2) to administer it to the patient without loss of time.

Another thing that we must consider is the various types of blood preservatives and anticoagulants. When the Russians first published their work on cadaver blood, the outstanding thing was the departure from the custom of using fresh blood. They stored the blood in a refrigerator. It was subsequently shown that ordinary sodium citrate solution could not preserve blood satisfactorily. A great deal of work has been done and anticoagulants developed in which blood is well preserved in the refrigerator. The most commonly used preserving anticoagulant is acid-citrate-dextrose solution. Both experimental work, using radioactive iron, and clinical experience in the war have shown that blood drawn into this solution may be stored for three weeks and that the cells remain in the circulation for a satisfactory length of time after transfusion. This solved the question of storing blood.

Finally, I should like to say a few words about the Rh antigen. I must mention this subject, because it has radically changed the technics and operations of a blood bank in the handling of blood for patients. You are aware of the relationship of the Rh antigen to hemolytic reactions in patients who receive multiple transfusions and in obstetrical patients. The discovery of this antigen, its role, and its ability to sensitize an individual, has made blood transfusions much safer. Those of us who have been long in this field can remember occasional patients to whom group-for-group. apparently compatible blood was given and in whom a hemolytic reaction occurred. The discovery of the Rh antigen, however, is not an unmixed blessing. It has introduced complications and many difficulties for the laboratory worker. Clinicians are not aware of the problems involved in training technicians for careful work of very elaborate and delicate testing which may be required.

In addition, I want to mention briefly that there have been improvements and refinements of technics for making solutions non-pyrogenic and glassware and infusion equipment non-pyrogenic

From the Samuel Deutsch Serum Center of the Michael Reese Research Foundation, Chicago, Illinois

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so that pyrogenic reactions can be reduced. This is important because if the reaction risk is great the clinician will hesitate to give blood. By eliminating most reactions due to extrinsic causes, blood transfusion can be made so safe that there should be no hesitancy in using blood.

A modern hospital must provide all types of blood. This must be immediately available, and it must be non-reaction-producing. How can this be accomplished? First is the appointment of a competent supervisor. Such a supervisor should be preferably a medical man. He should have complete authority over all aspects of blood transfusion work, starting from the solutions preparation and testing, and including the examination of the donor, bleeding the donor, testing the blood, and preparation of the transfusion equipment. All aspects of the work should be his responsibility. It is the only way to achieve the best type of service. I firmly believe that such a supervisor should make the blood transfusion service a first order of business and not a side issue. Transfusion work at the present time is a chain of procedures, all of which are important. Every link in that chain must be well controlled. The supervisor should have everything under his control. It should be his responsibility to check equipment, train personnel, supervise the personnel, and investigate transfusion reactions so that he can eliminate their cause. The ideal setup would also include an infusionist.

Blood should be stored on the premises of the hospital. How extensive the bank should be and how many blood groups should be stocked depend upon the size of the institution and the number of bloods that are used in a week or a month. It may not be feasible to store some of the very rare blood types because of infrequency of use. It is for that reason that there should be a reserve blood depot or blood bank, or a collaborating blood bank, in every community. Even though the average transfusions in a hospital number ten a week, there may be one day in which ten transfusions are given — so, a reserve bank is necessary to supply acute needs for blood. Secondly, even though only ten transfusions are used in the hospital per week, one severe hemorrhage patient of an uncommon blood group will require the aid of a reserve bank.

Every effort should be made by the man in charge, cooperating with the clinical staff, to have the patient's friends or relatives replace the blood in the bank. The average income and outgo of blood will balance off, as a rule.

It is very important to have proper quarters for a blood bank. The work involved with transfusions has increased, and proper working conditions are essential. Every effort should be made to put the blood donor at ease. It is desirable to have a pleasant waiting room and a proper venesection room. It helps reduce adverse effects of venesection if the donor can recuperate in a room after he has given blood. Proper quarters for the technicians are also important, because errors occur more frequently in a crowded laboratory.

Care should be exercised to select personnel who are conscientious. We cannot have mistakes in blood transfusion work. Many other laboratory procedures can be repeated, but a mistake in blood grouping may be fatal. Conscientiousness is a very important qualification. The technician must be trained well in all the aspects of blood immunology. The technician must be impressed with the fact that if something bizarre occurs it should be promptly referred to the supervisor.

Equipment is very important. It makes the work easier for the technician and provides accuracy and security for the blood bank. Time does not permit discussion of all the details of equipment, but every precaution must be taken to safeguard the blood.

Every female patient and every patient who will receive multiple transfusions should be Rh-tested and should be given the proper Rh-group blood. It is wise to give group-for-group blood to every patient, and I think that ultimately we may come to that. Every hospital with an obstetrical service should be prepared to do Rh determinations.

We cannot have too many safeguards in blood transfusion work. Even with good, conscientious, trained technicians and good equipment, mistakes do occur. I recommend double checking by two individuals using two different sera. This is especially important with Rh work. In this way we can safeguard accurate identification of blood.

Every institution wants to operate efficiently and economically. When it comes to blood, it is too valuable an agent, and the risks are too great, to place economy foremost. I think the patient's welfare should be considered first. The patient should get the best blood possible. Economy must be a secondary consideration in the operation of a blood bank.

CHOOSING THE THERAPY FOR THE BREAST CANCER PATIENT

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The title of this paper may, at first glance, seem paradoxical, since no new miracle drug has been discovered which is a cure for breast cancer. The old reliable methods of treatment, namely, surgery and radiation therapy, are still the best we have to offer the patient suffering from carcinoma of the breast.

And yet, it appears to this writer that we have, in the main, not made the best usage of these modalities. There has been much divergence of opinion in the profession. Some surgeons argue that operation alone should be done, and disparage the value of radiation therapy in any but the hopelessly advanced cases. These, fortunately, are few in number. On the other hand, some radiologists decry any attempt at surgical intervention in breast carcinoma and insist that radiation therapy alone is the treatment of choice. It is equally fortunate that these are in the minority.

We find surgeons divided into two camps, one group favoring radical mastectomy in the majority of cases, while the second group, in what appears to be a defeatist attitude, advocate only simple mastectomy. This latter group encompasses many surgeons of great renown, and their thinking and writings have influenced many lesser lights to follow their leadership. Obviously, one group cannot be entirely right and the other altogether wrong. I am reminded of the controversy which raged, only twenty or so years ago, between the "Cholecystectomists" on the one hand, and the "Cholecystostomists" on the other. Experience, and the passage of time, have proven that one form of surgical treatment of the diseased gall bladder is not applicable to all cases, and that the ultimate form of surgical management will depend upon the conditions found at operation in each individual patient.

Haagensen[1] states without equivocation that "in the face of the proved fact that cancer of the breast that has metastasized to the axilla has been cured by radical mastectomy, the performance of simple mastectomy in a patient who can tolerate a radical operation is nothing less than surgical cowardice". This opinion has been gaining ground in recent years. Sufficient evidence has been accumulating in the publications of various clinics throughout the country to substantiate this opinion, and it should be accepted as axiomatic. In the Breast Tumor Clinic of Cook County Hospital, we have seen countless cases of recurrence in the scars, skin adjacent to the scars, and pectoral musculature, where only simple mastectomy has been performed.

Why, then, in the face of the mounting and incontrovertible evidence proving the inadequacy of simple mastectomy, should so many surgeons still be using this technique? I have talked with many surgeons on this subject and many have expressed themselves to this effect: "I have performed many radical mastectomies, only to see these patients develop metastases which lead to death. What is the use of doing radical mastectomies?"

It is my sincere belief that many of these men had done radical mastectomies inadvisably, namely, in patients where the breast carcinoma had progressed beyond the stage where radical surgery offered any hope of a cure. Many of these surgeons evaluate the status of their patients with breast cancer in a very haphazard fashion. They follow no set routine of studying each individual patient, nor do they make any concerted effort to determine whether the breast cancer has spread beyond the confines of the affected breast, and, if so, to what extent.

This criticism is certainly not applicable to all surgeons. It does not apply to the men working in the large clinics and in groups where patients, as a rule, are carefully studied and "worked up". But it does apply to the large number of surgeons operating as individuals in the thousands of smaller hospitals, the men who see an occasional

From the Breast Tumor Clinic of the Cook County Hospital. The opinions expressed herein represent only those of the author, and do not necessarily represent the opinions of the other members of the surgical staff of the Cook County Hospital.

patient with breast cancer; and these men, in the aggregiate, perform a large number of mastectomies. Their routine procedure is about as follows: they see a patient with a lump in the breast. She is sent into the hospital and submitted to an excision of the mass (often an incision into the mass.), and a frozen section is made. If the report from the surgical pathologic laboratory is positive for malignancy, a mastectomy, often a radical one, is done. No attempt has been made, preoperatively, to do any x-ray study of the chest, skull, spine and pelvis to rule out metastases. The patient's blood picture and plasma proteins have often not been carefully studied, with the result that many patients go into irreversible shock resulting from hemorrhage. Often the blood transfusions which follow are "too little and too late".

And with this sort of "hit or miss" procedure, the percentage of recurrences and metastases will be high. Is it any wonder, then that the operation of radical mastectomy is condemned by these men as being ineffectual?

If the surgeon will, through inspection and careful palpation, elicit as much information about each mass in the breast as he possibly can, he should be able to make a fairly and reasonably accurate clinical differentiation between a benign and a malignant tumor. If there is a reasonable suspicion that the mass in the breast is malignant, the patient is then carefully studied for possible metastases. If any metastases other than to the homolateral axilla are discovered, the patient should not be considered as "surgically curable" at this time, and palliative therapy should be instituted.

Recent studies by Low-Beer[2] on the use of radio-active phosphorus, P-32, as a diagnostic procedure for breast carcinoma, are encouraging. We are carrying on a study in our clinic now of P-32 as a diagnostic agent, and shall report on it in the near future. This method may ultimately eliminate the necessity for a needle or excision biopsy, and we may be enabled to make an accurate pre-operative diagnosis and plan the type of therapy well in advance of operation.

Patients with breast cancer who are considered inoperable should be treated either by palliative simple mastectomy, to relieve them of the pain and the foul discharge which accompanies ulceration, or by x-radiation, or a combination of both. Radical mastectomy in these cases is unnecessary and foolhardy.

Within the past few years, considerable work has been done by Farrow and Woodward[3], and by Adair and Herrmann[4, 5, 6, 7, 8], and others, on the use of hormones, both estrogens and androgens, in advanced breast carcinoma, principally of the recurrent and metastatic types. While it may as yet be too early to evaluate the worth of stilbestrol for soft tissue metastases and testosterone for bony metastases, the reports to date are not too discouraging. We may have another effective weapon, in the form of the hormones, in our battle against breast carcinoma.

Classification Of Breast Carcinoma — There have been so many classifications of breast carcinoma, based principally upon histologic type of the growth, that a state bordering upon confusion exists. Almost every textbook of Pathology and Surgery contains a classification which is slightly different from every other one. Broders' classification into Grades I, II, III, and IV is perhaps the most universally accepted. This, of course, is based upon the peculiar characteristics of each particular carcinoma, as revealed by the microscope.

In our clinic, we have adopted as a simple working histologic classification the following: 1) Scirrhus, 2) Adeno-carcinoma, and 3) Medullary, going from the least malignant to the most highly malignant in this order.

What is more important, however, is that breast cancers should be classified according to their stages of advancement. The following classification is the one we have adopted in the Cook County Hospital Breast Tumor Clinic:

Stage A — limited to the affected breast

Stage B — limited to the affected breast and homolateral axillary glands

Stage C — involvement of one breast (with or without homolateral axillary nodes) plus supraclavicular nodes, homo- or contralateral

Stage D — Stage A (with or without Stages B and C) plus involvement of opposite breast

Stage E — Stage A (with or without Stages B, C, or D) plus distant metastases, to thoracic cavity, skull, spine, liver, or pelvis

Stages A and B are considered surgically curable, whereas Stages C, D, and E should be treated palliatively only. In many instances, following intensive radiation therapy, we have seen Stages C, D, or E reversed to Stages A or B. This, however, is rare.

An attempt is made to classify every patient, once a clinical diagnosis of malignancy of the breast is made, as soon as possible. Involvement of the axilla, supraclavicular nodes, or of the opposite breast, can usually be determined at the first examination. Then, the patient is sent to the x-ray laboratory for a complete study, which should include stereoscopic films of the skull and chest, one film for rib detail, serial films of the vertebral column, and a film of the pelvis.

The results of a careful physical examination, plus the x-ray findings, enable us, with a reasonable degree of accuracy, to classify the patient from a clinical standpoint.

Criteria Of Operability. — In general, all patients who fall into our classification of Stages A and B are considered as "operable," in the sense that there is hope for a radical cure. All the others are not suitable candidates for radical mastectomy.

Geschickter[9] lists the following as the most reliable criteria of inoperabilty:

1) Lymph node metastases to supraclavicular region

2) Skin metastases beyond the area immediately adjacent to the tumor

3) Acute or inflammatory carcinoma

4) Carcinoma developing in full-term pregnancy

5) Evidence of internal of visceral metastases

6) Extensive fixation of the tumor to the chest wall or tumor nodules in the chest wall

7) Extensive edema of the skin over the breast or of the arm

8) Considerations in regard to the general condition of the patient, such as severe hypertension, cardiac or renal disease, advanced age, etc.

Haagensen and Stout[10] in their consideration of the criteria of operability, agree almost entirely with Geschickter's classification. It can be readily seen that the Stages C, D and E of our classification, which we consider inoperable, fit in well with the above classification.

Combined Surgery And Radiation Therapy. — One is treading upon extremely controversial ground when attempting to discuss this subject. Many surgeons are of the firm belief that in Stage A breast carcinoma, radical mastectomy, without any x-radiation, either pre- or post-operatively, is indicated. This writer does not agree with this view, and subjects all his patients, both clinic and private, to radical mastectomy and x-radiation. We have seen far too many patients who have had surgery alone, even though adequately performed, develope metastases and locally recurrent nodules. In our experience, the percentage of these recurrences is definitely less when x-radiation has been combined with radical mastectomy.

Most men are agreed that patients with Stage B carcinoma should have combined surgery and radiotherapy. There is much divergence of opinion, however, as to how these should be combined. Many prominent surgeons have discarded completely preoperative irradiation, stating that it is of little or no value. One of the Editors of the Quarterly Review of Surgery[11] in commenting upon an article dealing with breast carcinoma, stated that "The majority of surgeons interested in carcinoma of the breast have given up routine pre-operative x-ray therapy in operable lesions. Certainly it would seem very desirable in the post-operative treatment, particularly in those cases with axillary involvement. X-ray therapy is definitely indicated, however, in the inoperable case, and most surgeons admit that now and again it will convert the inoperable into an operable lesion".

On the other hand, there are statistics which would seem to indicate that pre-operative irradiation is of definite value in selected cases. In a study which has been conducted in our clinic during the past five years, the report of which is now in preparation[12], we have concluded that pre-operative x-radiation is of value, especially in those breast carcinomas which are radiosensitive, such as the highly anaplastic medullary type. We have had several cases, proven by needle biopsy to be medullary carcinomas, which we subjected to an intensive cancericidal dose of 7500 R, where the tumors melted down so that they could neither be felt, pre-operatively, nor found in the resected breasts after operation.

These patients are alive, with no signs of recurrence, three years after radical mastectomy.

It is probably not necessary that one become an "all-out" protagonist of either pre- or post-operative x-radiation, as long as the therapy is given. I consider it very important, however, that the surgeon and the radiologist work together as colleagues, with unity of purpose, rather than as competitors. Just as the roentgenologist is eager for clinical information about the patient, so that he may better interpret the shadows he sees, so also will the radiologist benefit from the information which the surgeon can give him. If the radiologist knows something about the size of the mass, its location, duration of symptoms, whether axillary glands were found, the histologic type, etc., he can plan his therapy more intelligently. A personal consultation between surgeon and radiologist should be a part of every referral of a breast cancer patient for radiation therapy.

Patients may be referred to the radiologist as early as the fourteenth day following radical mastectomy, provided the radiogist understands that he is to irradiate all the other portals, axillary, supraclavicular, posterior mediastinal, etc., and not touch the scar area for a few additional weeks.

Follow-Up Treatment. — All patients with breast carcinoma should have follow-up observation for prolonged periods of time. Unlike the patient who has had a cholecystectomy or a hysterectomy, and who may be safely discharged by the surgeon after several months, the patient who has had a mastectomy for carcinoma of the breast should, theoretically, never be discharged from observation. Our practice is to see the patient every four to six weeks for the first six months, and every eight to ten weeks during the next six months. They are seen every three months during the second year, and semi-annually thereafter. It goes without saying that these examinations should be searching and thorough. One should develop a standardized routine of examination to include the area of the scar, both axillae and supraclavicular regions, the remaining breast, the entire chest wall, and the abdomen over the liver. The patients should be questioned as to whether they are coughing, or having any back pain. I think that I perhaps bend over backwards in insisting that all my patients have an x-ray check-up of the skull, chest, spine and pelvis every six months following mastectomy. But, in addition to the information derived by the examiner from this procedure, the patients seem to benefit from the assurance that no metastases exist, and their morale is improved.

And, occasionally, early pulmonary or skeletal metastases are discovered, which might otherwise have been missed; and suitable therapy, whether irradiation or endocrine, or a combination of both, can be instituted with definitely beneficial results to the patient.

SUMMARY AND CONCLUSIONS

1. No attempt has been made in this paper to discuss the diagnosis of breast carcinoma in detail, since the diagnostic features are universally well-known. The emphasis is placed upon the treatment.

2. The plea is made, however, that the surgeon make an earnest attempt to make a differentiation between benign and malignant lesions, on the basis of the clinical findings, in advance of the surgical procedure. If the mass is suspected of being malignant, a careful search should be made to determine the stage of progression, using both clinical findings and x-ray studies of the skull, chest, ribs, spine and pelvis.

3. All breast carcinomas are classified into five stages: A, B, C, D, and E. Stages A and B are potentially curable and should be treated by a combination of radical mastectomy and irradiation, either pre- or post-operatively. Stages C, D and E should be treated palliatively only, and radical mastectomy should never be performed upon patients in these latter groups, as the results are poor and the radical procedure may be falsely considered ineffective.

4. The operation of simple mastectomy should never be performed for early breast cancer. It should be used only as a palliative measure in advanced lesions, or supplemented by radiation or endocrine therapy.

5. There should always be close cooperation between the surgeon and the radiologist, working as a team to achieve a common goal, rather than as competitors.

6. Prolonged and thorough follow-up should be done on every patient with breast carcinoma; not for months, but for years. Periodic x-ray

examinations are of value, especially, from the standpoint of enchancing the patient's morale.

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NEW DRUG, DEVELOPED SINCE WAR, ALLEVIATES MANY KINDS OF PAIN

A new drug, made available in this country after World War II, has been found effective in the alleviation of many kinds of pain, according to an article in the April 3 issue of The Journal of the American Medical Association.

The drug, which was given the non-proprietary name of methadon by the Council on Pharmacy and Chemistry of the American Medical Association, was originally prepared by German chemists and was known as drug 10820.

Writing in The Journal, Elizabeth B. Troxil, M.D., of the Department of Pharmacology of the University of Minnesota Medical School, says that in April 1946 clinical trials of the drug were instituted at the University of Minnesota Hospitals and that it was tried on 400 patients for relief of all types of pain.

Some of the conditions for which it was used to alleviate pain were: postsurgical, primary and metastatic cancer, arthritis, neuritis, headache, leg ulcer, anginal, pain, and gastric and duodenal ulcers.

The drug was administered orally — in capsules, tablets, and elixir — and by hypodermic and intravenous injection.

"Onset of action," the article says, "was two minutes when given intravenously, within 15 or 20 minutes when given hypodermically, or when given orally as the elixir, and 30 minutes when given orally in capsules or tablets.

"By all routes of administration it was found that the average duration of action was from three to four hours, with many of the patients obtaining relief for as long as eight to 12 hours."

One group of investigators found in experiments carried out on animals that the new drug had some of the characteristics of both morphine and merperidine. The effects on the nervous, circulatory and respiratory systems were similar to those of morphine.

Other investigators found that methadon was more potent than either morphine or merperidine.

Still another group observed the effects of methadon in former morphine addicts and found that the abstinence symptoms from morphine could be controlled with methadon. When methadon was withdrawn abruptly after prolonged administration, the symptoms were so mild that treatment was not necessary.

This method, Dr. Griggs discovered, brought about the most gratifying results yet attained in undulant fever treatment.

In addition to the high rate of cure and improvement, this latest therapy is applicable to nearly all cases of the fever and "is usually accompanied by symptomatic improvements, rather than unpleasant reactions."

However, the physician points out, a long time is required to complete the treatment, old people and those particularly sensitive to vaccine are particularly difficult to treat, and great care is required in both the handling and preparation of the serum.

Case Report

SOLITARY PYOGENIC ABSCESS OF LIVER

Report of a Case due to Anaerobic Streptococci Cured by Penicillin*

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Much has been written lately concerning the diagnosis, pathogenesis, and treatment of pyogenic abscesses of the liver as well as reports of proven cases being cured by medical and surgical measures. The mortality rate remains high, however, almost 100% in cases not submitted to surgical drainage. Penicillin promises to lower this mortality rate for us in both surgically and non-surgically treated cases.

A discussion of the diagnosis and pathogenesis of pyogenic abscesses of the liver is not within the scope of this paper, but it may be appropiate to note the routes of invasion of the liver by bacteria as commonly thought of. These are, in order of importance, (1) infections from areas drained by the portal system, (2) direct spread from adjacent body structures, (3) penetrating injuries, and (4) blood borne infections. In spite of this knowledge it is frequently impossible to locate the contributing focus of infection. This focus may be so small as a simple abrasion of the muscosal lining of any portion of the entire intestinal tract. However, on the other hand one may be reasonably certain of the portal of infection in the presence of, or recent history of acute appendicitis when symptoms and findings of pyogenic hepatic abscesses are present.

Practically all types of pyogenic bacteria have been reported to have been cultured from pyogenic abscesses. The most frequent ones found are Eschericha coli, staphylococci, and the non-hemolytic and hemolytic streptococci. Few reports are in the literature condemning the anaerobic organisms in this disease. In fact only three other such cases are reported.

One case reported in 1937[1] by McDonald, Henthorne, and Thompson revealed a pure culture of anaerobic streptococci from multiple abscesses of the liver found at necropsy.

St. John, Pulaski and Ferrer[2] reported, in 1942, a case of a solitary abscess of the right lobe of the liver from which a pure culture of anaerobic streptococci was obtained. The patient recovered after a two stage transperitoneal surgical drainage.

Michael and Wirth[3] reported recently a case of multiple pyogenic abscesses of the liver due to anaerobic streptococci. This patient was apparently cured with penicillin injections after surgical drainage and sulfonamides had failed.

CASE HISTORY

Chief Complaint: Headache, fever, and pain in his eyes for twenty-four hours.

Family History: Non-Contributory.

Past History: Patient had the usual childhood diseases without sequelae. No serious infectious diseases were noted. General health has been good until onset of the present illness.

Patient states that he was hospitalized while serving in the Philippine Islands for treatment of Dengue Fever and again for dermatopytosis of the feet. No history of malaria, dysentery, or other parasitic diseases common to the Pacific

No previous operations have been performed.

Review of System: Essentially negative.

*Case taken from the records at the 42nd General Hospital (Tokyo, Japan).

Present Illness: Twenty-year old white soldier was admitted to the 161st Station Hospital on 21 August '46 for treatment of fever, headaches, and pain in his eyes (photophobia) for twenty-four hours' duration. He had reported to "sick call" on the previous day for treatment of dermatophytosis of the feet with some ulcerations. He states that he felt "chilly", but noted no cough, chest pain, nausea, or vomiting. His bowels had been regular without diarrhea, blood or tarry stools being noted. There was no associated urinary urgency, frequency, burning on urination or flank pain.

Physical Examination: Temperature 103^6. Pulse 114, Respiration 24, Blood Pressure 100/60.

General — Asthenic, white male quite lehtargic and complaining of severe headaches.

Head: Ear, Eye, Nose, and Throat. —essentially negative.

Neck: No meningismus, enlargement of thyroid gland or other abnormalities.

Lymphatics: No general glandular enlargement.

Chest: Normal body configuration with equal bitaleral expansion.

Lungs: Breath sounds are normal. Lungs are clear to percussion and auscultation.

Cardiac: Blood Pressure 100/60., Pulse 114. Precordium is quiet and no thrill can be felt. The heart is not enlarged to percussion. Point of maximum impulse is located in 5th interspace 8.5 centimeters to left of midsternal line. There is a soft systolic murmur heard over the apex, and it is not transmitted.

Abdomen: Muscle tonus is normal. No masses or tenderness can be elicited. Liver, spleen and kidneys are not felt. No flank tenderness to fist percussion is noted.

Inguinal — Negative.

Genitalia — Normal male configurations.

Rectal — No tenderness, masses or other abnormalities noted.

Extremities — There are several furuncles over the lower legs and buttocks. No lymphangitis or lymphadenitis present.

Neurological — Cranial nerves are intact. The motor and sensory systems are physiological.

Skeletal — No abnormalities are present.

Ascessary Clinical Findings: White blood cell count 19,300. No differential count was done. Blood smears were negative for malaria. Urinalysis showed specific gravity of 1.023, negative albumen, negative sugar, and the microscopic exam revealed 1-3 red blood cells per highpower field and few white blood cells. No casts were seen.

Course in Hospital: On the day following admission his temperature was 102 F and repeated blood count showed hemoglobin 90% or 13 grams, white blood cells 44,000, neutrophiles, 86%, lymphocytes, 11% and monocytes, 3%. Another blood smear for malaria was reported as negative. A large lumbar puncture was performed and the initial pressure was 240 milimeter of water with normal dynanics being obtained. The fluid was clear and the Pandy was negative. No cells were seen. Cultures were later reported as negative.

Physical examination on this day after admission was unchanged from the previous day. An x-ray of the chest was normal. A blood culture was taken and he was started on penicillin, 30,000 units every three hours. The blood culture was later reported as "no growth".

On the second hospital day his temperature ranged from 98^4 F — 100^2 F. His penicillin was raised to 50,000 units every three hours. He appeared some better, but still complained of severe backaches.

On the third hospital day the patient had a mild shaking chill with a temperature rise from 97 F to101^4 F. White blood cell count was reported as 29,000. The urine was given essentially negative.

On the fourth hospital day the patient complained of a sudden severe right upper quadrant and epigastric pain, aggravated by deep breathing. There was no associated cough or radiation of the pain to the back or shoulder. Examination revealed the heart and lungs to be normal. There was marked tenderness and moderately increased muscle tonus in the right upper quadrant. The liver was not palpable, nor was there tenderness over the liver. The possibility of a subphrenic abscess was entertained. His temperature ranged from 101^0 F. — 102^4 F. His right lower chest pain was so severe at times to cause him to sit up in bed.

On the fifth hospital day an x-ray of the chest showing the diaphram and an x-ray of the abdomen were reported as normal. He developed an urticaria and this was thought to be due to penicillin, so this was discontinued. His white blood count was 22,200, red blood cell count 4,200,000.

hemoglobin 80%, lymphocytes 10%. The patient continued to complain of right upper quadrant pain and showed leukocytosis or fever, so he was transferred to the 42nd General Hospital on 28 August '46 via air evacuation.

Upon admission here his physical examination was essentially the same as previously recorded. His course continued to be that of a septic one with daily afternoon temperature rises to 102° F —103°F. An x-ray of the chest on 29 August '46 was again reported to be normal. Flat plate of abdomen revealed obliteration of the right psoas shadow, but the kidneys were clearly seen except along its medial border. On the 29th of August he was started again on penicillin, 50,000 Oxford units every three hours. Repeated films and fluoroscopy of the chest on 31 August '46 revealed marked limitation of motion of the right leaf of the diaphram as well as an inflammatory reaction above the diaphram.

The liver was not enlarged. Retrograde pyelograms of the kidneys revealed irregularity and fuzziness of the right superior calyx. This film was interpreted by the x-ray department staff as indicating a subphrenic inflammatory process.

Repeated urine examinations and cultures were negative. An electrocardiogram was within normal limits.

Repeated examinations revealed pain over the right upper quadrant and liver, anterior. Never was pain present in either flank. He continued to run a daily "spiking" type temperature and on 1st September his penicillin dosage was increased to 100,000 Oxford units every two hours. Twenty-four hours later his temperature "spike" was a maximum of 100° F. The following morning, the day of operation, his temperature was 98°F, and he had improved considerably clinically. There was some discussion among the staff members as to the advisability of proceeding with the surgical exploration. However, on September 3, 1946, the fourteenth day of his illness, exploration was done under spinal anesthesia.

Operation Record: The abdomen was prepared in the usual manner and draped in a sterile field. A right subcostal transverse incision was made and carried down to the peritoneum. By blunt dissection the peritoneum was deflected from the ribs. This was carried up over the dome of the liver to where an area of dense attachment of the liver to the diaphram was found in the anterior superior hepatic space. This was explored with the finger and a small intrahepatic abscess exposed. Approximately 4 cubic centimeters of nonodiferous purulent material were obtained. Further exploration of the superhepatic area revealed no further pathology. Because of the presence of a small rent in the anterior parital peritoneum visulization of the subhepatic area was possible and no further pathology was found here. The purulent material was removed from the abscess with applicators and sent to the laboratory for culture and examination. A cigarette drain was placed at the side of the abscess and brought out through the incision. The rent in the peritoneum was closed with continuous plain 0 catgut. The rectus muscle, anterior rector sheath, and subcutaneous tissue were all closed with interrupted cotton sutures. The skin was closed with interrupted cotton sutures. Sterile dressing was applied. The patient returned to the ward in good condition.

Comment: I, together with many other members of both the medical and surgical staff at the 42nd General Hospital, believe that in view of the clinical course and findings at operation this patient would have completely recovered without the benefit of surgical drainage. Five days before operation he was placed on penicillin 50,000 units every three hours in disregard of his previous urticaria which developed earlier in his disease. He continued to have daily "spiking" evening temperatures ranging from 102° F to 103° F. Thirty-six hours before operation this dosage was changed to 100,000 units every two hours and the evening before surgery his temperature failed to rise above 100°F. The following morning his temperature was 98°F, and there was some discussion among the staff members as to the rationale of exploration at that time.

At operation evidence of rather extensive pathology was encountered in the anterior, superior portion of the right lobe of the liver. A wide area of induration measuring approximately 7.5 centimeters in diameter was found and near its center a small abscess cavity containing about 4.0 cubic centimeters of non-foul purelent material was noted. Cultures of this material were reported as pure cultures of anaerobic streptococci. It was thought that this infectious process had already been brought under

control by the penicillin administered preoperatively. Penicillin in doses of 100,000 units every three hours was continued during the first five post operative days. This was then decreased to 50,000 units every three hours which he continued to receive for seven additional days in disregard of his afebrile course.

His postoperative course was that of a rapid and complete convalescense. During the first postoperative day his maximum temperature rise was 102°F. Thereafter, his temperature continued to fall gradually until on the third postoperative day he was afebrile and remained so. He was discharged on the eighteenth postoperative day.

SUMMARY

(1) A case of a solitary hepatic abscess due to anaerobic streptococci is herein reported.
(2) It is believed that this case represents a cure by penicillin alone.
(3) Three previous cases of hepatic abscesses due to anaerobic streptococci have been reported. One was found at necropsy two and one-half months following surgical closure of a perforated duodenal ulcer. Another one was cured by a two-stage transperitoneal surgical drainage, and the third was a case with multiple pyogenic abscesses of the liver cured with penicillin after sulfonamides and surgical drainage had failed.
(4) Penicillin, perhaps in massive doses, offers a brighter outlook in the future for pyogenic abscesses of the liver.
(5) This is the second case reported due to anaerobic streptococci to be cured by penicillin.

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HOW ABOUT A CHIT-CHAT WITH YOUR MINISTER?

Commenting on some of the actions taken at the recent Ohio Pastors' Convention in Columbus on legislative matters affecting business, the bulletin of one of the state organizations representing a retail business group observed:

"We believe it is time businessmen, besides financially supporting the church, also enlighten their minister on the problems of operating a business today."

Judging from some of the public statements which have been made recently by some church men regarding medical and health questions, many of which indicated a lack of accurate information on such matters, physicians also should do a bit of missionary work among the clergy.

The pulpit can be a potent medium for the dissemination of facts or propaganda, depending on the belief of the minister and on how well informed he happens to be.

The Ohio State Med. Jl., May, 1948

SURGEONS DEVELOP NEW TECHNIC TO REMOVE FOREIGN BODY

Two Indianapolis doctors have developed a new technic for removing solid bodies lodged in the esophagus, the tube that leads from the throat to the stomach. The doctors are: W. D. Gatch and Molt.

Writing in the current issue of the Archives of Surgery, published by the American Medical Association, the doctors report the case of a man 46 years of age who swallowed his upper denture. They made a small opening in the stomach, passed an instrument upward into the esophagus, grasped the object and removed it through the stomach opening.

This method of removing solid bodies lodged in the lower part of the gullet, they explained, avoids the dangerous and often impossible methods of extraction through the mouth with forceps. This accident is especially dangerous when the object swallowed has sharp points.

Industrial Health

Committee On Industrial Health — Jos. H. Chivers, Chm., 836 S. Michigan Ave., Chicago 5, Frank P. Hammond, H. A. Vonachen, R. I. Barickman, C. O. Sappington, Milton H. Kronenberg.

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INDUSTRIAL HERNIAS

Will F. Lyon, M.D.
CHICAGO

Industrial hernias there are, but true traumatic hernias are rare. What is the distinction? An industrial hernia must be defined as one which satisfies the requirements of the workman's compensation act of the particular state in which the person is working, but it is not necessarily, and in fact is not usually, due to trauma; rather it is almost invariably congenital in origin. To be traumatic a hernia should be accompanied by at least some extravasation of tissue fluids, such as is found when a biceps muscle has been struck and its sheath ruptured, or a person's body squeezed severely and a tear made in the diaphragm. Most traumatic hernias occur in skeletal muscles and the diaphragm, almost never in the groin.

For the purpose of this discussion, only hernias of the groin will be considered, all others being comparatively rare.

Many hernias of the groin have been operated on within a day or two after their initial appearance; yet never are extravasated tissue fluids found unless there has been direct trauma, such as a severe contusion with actual tearing of some of the layers of the abdominal wall, or strangulation of the contents of the hernial sac.

What, then, is the cause of these hernias? Indirect hernias are the result of an incomplete obliteration of the peritoneum taken into the scrotum when the testicle descended. The failure of obliteration may be complete, and then there is a "congential" hernia, the sac extending all the way to and around the testicle. More frequently, part of the peritoneal pouch has been completely obliterated and the walls of the rest of the pouch merely stuck together, only to be separated, perhaps thirty years later, making the hernia suddenly become apparent. Occasionally at operation such sacs are found which have not yet been opened up. They may well be compared to the pockets of a physician's white coat which have been starched and ironed shut. As long as they are stuck together and empty they are inconspicious, but once something enters them, they become obvious. Direct hernias develop gradually through a congentially weak area in Hesselbach's triangle which is gradually thinned out and stretched by every muscular effort involving the abdomen; a few come through a sharply defined, small congential hole in the floor of the inguinal canal. A femoral hernia comes through a patent femoral ring or one whose closure is too weak to withstand the constant intra-abdominal pressure. The formation of the actual sac through this opening requires a long time, many months at least.

First of all, uncomplicated hernias are not disabling, and should not, therefore, constitute a cause for rejection in preemployment examinations. It is not the man having a hernia when hired who causes trouble, but rather the one in whom, though there was no evidence of a hernia when he was hired, one proceeds to develop while he is employed. Few awards have been made for

compensation on account of aggravation of a hernia which was present and noted at the time of employment, and still fewer for strangulation. The International Harvester Company has never made it a practice to refuse employment to persons with hernias, yet the company's experience with these employees has been so successful that not one cent of compensation has had to be paid by the company on account of aggravation of a hernia found to be present at the preemployment examination. Hernias may cause discomfort or acute pain at times, especially when they are enlarging rapidly, and at such times they may be temporarily disabling for a week or ten days. Trusses should be worn only if they give comfort and really keep the hernia reduced; otherwise they do more harm than good. Since trusses do not cure hernias, they are at best temporary stopgaps, and too frequently result in the postponement of surgical repair from the time when it is safe and easy to a time when conditions are far less favorable. The pressure of the truss may have become intolerable and the man's general condition not so satisfactory because of such factors as obesity, cardiac and renal damage with hypertension and, worst of all, a chronic and deep cough; yet in spite of these, surgical repair has become a necessity.

Few hernias strangulate, and the operative mortality even in these should be extremely low; hence hernias must be classed as benign lesions. This means that a surgeon must be convinced that he can keep his operative mortality almost to zero before he attempts the repair of these otherwise benign conditions. Also, the surgeon must try to keep his recurrence rate below 5 per cent if he is to justify his operations on hernias. The following observations are offered in the hope that they may be of assistance in satisfying these requirements.

An intimate knowledge of the anatomy of the groin is indispensable. Careful, atraumatic aseptic surgery and an open-minded technic to make the best use of the tissues available rather than to adhere rigidly to some predetermined type of repair will be of much assistance. The use of local anesthesia (1 per cent procaine hydrochloride with 2 drops of neo-synephrine to the ounce [28.3 cc.]) and cotton throughout will reduce both mortality and recurrences. Ordinary cotton thread size 40 for ligatures and 20 for sutures, is satisfactory. Obviously, the patient should be intelligently prepared, and this means the loss of several pounds, as well as inches of waistline if the patient is obese, especially if the hernia is large. Abdominal contents which have lived outside of the abdominal cavity for any length of time are not welcomed back home! Preoperative medication may well include administration of some barbiturate when local anesthesia is to be used. The procaine hydrochloride is injected first about 1cm. above the anterior superior spine of the ilium into the skin; then with a longer needle the external oblique muscle is pierced and the solution injected beneath, a fan-shaped area being blocked by tilting the needle to reach from the anterior superior spine high enough to block the lower fibers of the iliohypogastric nerve and to flood the ilioinguinal nerve. The needle is then run along just under the skin from the original point of injection to and around the pubic spine, plenty of procaine hydrochloride being left to anesthetize the skin along the line of incision. This whole injection should be carried out without touching the skin with the gloves, and immediately after the incision has been made towels and clips should be applied to keep the skin covered. At the outer end, the incision is now carried down to the external oblique muscle, and when this has been identified, is continued medially. If this procedure is not followed, the hernia and its contents may be cut into before the external oblique muscle has been reached. The external ring can now be identified and the external oblique muscle divided parrallel with its fibers from this to above the internal ring. The upper flap is gently lifted and freed so that it can be retracted; the lower flap is freed down to the inguinal ligament, which should be scarified by rubbing with gauze over the finger tip. The lower border of the internal oblique muscle will now be seen, and below it the cord; this should be lifted, procaine hydrochloride should be injected into it, and it should be carefully mobilized clear to the internal ring. The cord is then opened and searched for an indirect sac.

If an indirect sac is found in the cord, it should be dissected free and opened and explored with a finger, which assists materially in dissecting the sac free all the way to the parietal peritoneum, and this is absolutely essential. The

finger in the sac should be inserted into the abdomen to investigate the femoral ring to rule out a femoral hernia, and also to explore the floor of the inguinal canal from the inside. Then the sac, if narrow, may be transfixed, ligated high and amputated, but if its base is over 1 inch (2.54 cm.) in diameter, it is safer to place a purse string suture before ligating and amputating the sac. Obviously, one must be careful that bowel is not included in the ligature. If amputated high, the stump of the sac should immediately retract well up under the internal oblique muscle on being released. Anchoring it there is not only unnecessary but inadvisable. If there is no direct or femoral hernia, the only excuse to do more than close the wound and get out is to decrease the size of the internal ring, and this is usually necessary. Several interrupted mattress sutures between the transversus abdominis and the scarified inguinal ligament underneath the cord will accomplish this; usually four or five are used. A safe rule for the last suture is that it should be placed opposite the middle of the cord as it emerges from the internal ring, thus crowding the cord laterally a bit. The external oblique muscle is then closed, also under the cord, by interrupted sutures, and the skin by any method desired. Gentle pressure should be maintained on the wound for a few minutes to prevent bleeding from the puncture wounds of the cutaneous needle. Then silver foil and dry dressings are applied.

If a direct hernia is found, it should not be opened but should be invaginated by either a purse string suture or several mattress sutures, and the repair of the congenitally defective floor of the inguinal canal becomes the most important part of the operation. Conjoined tendons exist in textbooks but seldom in abdominal walls. If the red internal oblique muscle is carefully lifted, the white fibrous transversus abdominis will be found underneath, and it is this, plus the rectus, if necessary, which must be sutured to the scarified inguinal ligament by a series of interrupted mattress sutures underneath the cord. Care must be taken that each subsequent suture goes between different fibres of the inguinal ligament, or this may be pulled apart. If one is careful in conserving tissue, it will seldom be necessary to use fascia lata with a pedicle either under or over the inguinal ligament, or as a free transplant, to fill in a defect. McNealy has reported the use of a vitallium shield over the inguinal canal where there is need for additional tissue. The rest of the repair is the same as for an indirect hernia.

If a femoral hernia is found, the main part of the sac will be below the lower flap of external oblique muscle and under Scarpa's fascia, where it should be entirely freed. If it cannot be easily reduced, the sac should be opened, and if omentum is found this may be ligated in several sections and reduced; but if bowel is found and cannot be easily returned to the abdomen, the inguinal ligament may be cut. The femoral ring is best closed from above the inguinal ligament, this being sutured to Cooper's ligament by a mattress stitch or two. Care should be taken to protect the femoral vein from injury, and this is best done by exposing the vein well, then retracting it laterally before the suturing is done.

One other type of hernia of the groin must be mentioned, the so-called sliding hernia, partly because it is not uncommon and also because it requires a different method of disposition and, like the other hernias of the groin, cannot be definitely dignosed ahead of time. Since this is true, a surgeon should not attempt the repair of any hernia of the groin until he knows how to recognize and dispose of a sliding hernia. It is diagnosed only after the sac has been opened and the medial wall of the sac is found to be the mesentery of the bowel or other content of the sac. That is, mesentery has "slid" down through the hernial opening to form part of the sac. The point is that the contents of the sac cannot be reduced without reducing the sac itself. Obviously then, the sac cannot be amputated but must be turned in by purse string sutures. Usually, it is easier to turn in only about one third of the sac at a time, the last purse string being down to parietal peritoneum. From this point on, the repair is as previously described. Incidentally, this method of invaginating the hernial sac is a safe procedure in disposing of any hernial sac, where, for some reason, the sac does not lend itself to amputation.

After the operation, the patient should be encouraged to turn carefully at will, to have his back rest up as soon as desired, but certainly that same day, and to exercise all extremities, gently at first. Having him take his own bed bath and

elevating the head rest as he wishes assist in circulating blood through otherwise rather quiet veins. The patient should be up in a chair for a little while the next day after operation and should gradually increase his activities daily thereafter. Ordinarily, the dressing is not changed until the stitches in the skin are removed at the end of a week. By this time he may usually be discharged from the hospital and no further dressings should be required. On being released from the hospital, the patient should be instructed to spend his next two weeks just loafing at home, avoiding unnecessary strain—not using force during his bowel movements, for instance. After this two week period at home, he may begin to go outside each day, walking a little more right along until, at the end of a month, he is fairly active. A few patients can safely return to light duties six weeks after operation, but most will do well to spend an additional two weeks in getting back good muscle tone before resuming work, and it is important that these last two weeks be spent in actually regaining some of the muscular strength that was lost right after operation. Probably it is wise also to caution each man against unusual strain for at least six months after his return to work. "How soon can I drive my car?" is a frequent query, and my answer is in not less than two months, preferably three.

Finally, I shall say a few words regarding recurrences. Any hernia appearing in a groin previously operated on must be classified as a recurrence. This is mentioned because an analysis of my own recurrences shows that over half are actually cases in which multiple indirect sacs were present and missed at the first operation. These multiple sacs are not rare but are difficult to find until they have been distended by bowel, omentum or other contents. Over half of the rest of my recurrences have been direct hernias, coming alongside the cord as it emerges from the abdomen; few have come through just lateral to the pubic tubercle, and practically none through the strengthened floor of the inguinal cord. In repairing recurrences, it is usually wise to open up the entire groin by sharp dissection with a scalpel, and after this has been done, a satisfactory repair becomes gratifyingly easy. Interestingly enough, I have found my recurrence rate in recurrent hernias, whether mine or not, no higher than in the repair of primary hernias.

The injection treatment of hernias has again been rather universally abandoned as unsatisfactory from the standpoint of cures, especially in adults, and is not without a substantial risk. Among other factors contributing to this risk are, first, the fact that it is sometimes impossible to determine by physical examination whether a hernia really is reduced and, second, the impossibility of knowing for certain just where the tip of the injecting needle is after several previous injections have resulted in a variable amount of scar tissue.



The toxicity of streptomycin now appears to be sufficiently great to deny use of the drug to those patients who are making satisfactory progress under conventional forms of treatment. At present, most experienced physicians prefer to reserve the limited supply for patients more acutely ill, and especially for those in whom the disease has been progressive during recent months, and no other treatment is likely to be effective. Streptomycin is of no lasting or significant benefit to patients who apparently have hopeless, destructive types of pulmonary tuberculosis. H. McLeod Riggins, M.D. and H. Corwin Hinshaw, M.D., Am. Rev. Tbc., Aug., 1947.

The kaleidoscopic nature of tuberculosis, the sometimes bizarre effect of streptomycin upon it, and the fact that the drug at best merely supplements and does not replace accepted methods of treatment require that its use be confined to institutions for the treatment of the disease. The patient must have sanatorium care and all of the supportive treatment that tuberculosis has always required, along with collapse procedures and other necessary surgical methods. The drug merely supplements and does not replace accepted therapy. Henry Stuart Willis, M.D., North Carolina M. J., Nov., 1947.

News of the State

PERSONALS · COMING EVENTS · MARRIAGES · DEATHS

ADAMS COUNTY

Society News.—Dr. Walter Dayton Abbott, Des Moines, Iowa, addressed the Adams County Medical Society, April 12, on "Cartotid Arteriography in the Diagnosis of Intracranial Lesions."

BUREAU COUNTY

Society News.—Dr. John F. Pick, Chicago, clinical assistant professor of surgery, University of Illinois College of Medicine, discussed "What the General Surgeon Must Know About Plastic Surgery" before the Bureau County Medical Society at the Perry Memorial Hospital in Princeton, April 16.

COOK COUNTY

Awards in Medicine and Dentistry.—Four physicians and dentists from China, Iran, England, and Canada are included in the list of appointees who have been awarded research fellowships in medicine and dentistry by the University of Illinois graduate school.

The University has awarded a total of 10 fellowships, each carrying a stipend of $1,800 for one year of study. All but one of the appointees will assume their studies on July 1.

The appointees and their fields:

Dr. Joseph M. Kieley, Chicago, physiology; Dr. John Schwab, Philadelphia, Pa., physiology; Dr. Husang Javid, Teheran, Iran, surgery; Dr. Paul H. Jordan, Jr., Peoria, surgery; Dr. Isaac M. Berry, Chicago, clinical science;

Dr. Gordon Henninger, Baltimore, Md., internal medicine; Dr. H. T. Chang, Tietsin, China, internal medicine; Dr. Robert Hess, Wilmette, internal medicine; Dr. Ronald Emslie, London, dentistry; and Dr. Gordon Nikiforuk, Toronto, Can., dentistry.

Research Studies at Illinois.— At least 18 major research studies are in progress in the department of medicine at the present time, according to a survey conducted recently by Dr. M. H. Streicher.

The projects include the Navy studies in convalescence with Drs. R. W. Keeton, Warren H. Cole, and H. H. Mitchell as the principal investigators, aided by a large staff of cooperating faculty members.

The interests, at present, in this study are directed toward the measurement of the physical fitness of the patient before the operation, the effect of the operation on this physical fitness, and the time of his return to his previous physical fitness.

In another study, Mr. Robert Kyle is interested in synthesizing steroids which might have a bearing on salt excretion or retention. Mr. Kyle is associated with Dr. N. O. Calloway in the planning of this study which is supported in the form of a fellowship by the U. S. Public Health Service.

Drs. Aaron B. Kendrick, W P. Swisher, and R. A. Forrest are studying methods for the determination of mannitrol in the presence of high concentrations of glucose in the blood and in the plasma. Three others, Drs. Melvin M. Chertack, Luke J. Grimelli, and Helen L. Rhetta are studying the renal thresholds in diabetic patients, and the influence of hyperglycemia on tubular function and renal blood flow.

A major research project is the study of the influence of exposure of a patient to varying environmental conditions. This study is being executed by Mr. Nathaniel Glickman and Mr. T. Inouye, under the direction of Dr. Ford Hick. In another study in the department, Dr. I. R. Callen is following the effects of lowered oxygen concentrations on patients with hyperthyroidism.

Dr. Sophie J. Presley is conducting a research study on the maximal ventilation capacity of patients with various cardiac and respiratory diseases. Another, Dr. Anthony R. Sapienza is studying the influence of tilting patients on the electrocardiogram.

Mr. Glickman and Dr. S. E. Telser are studying the effects on nude subjects of variations in the moisture content (vapor pressure) of the air on water loss. These effects are in contrast to subjects who have a minimal amount of clothing. In this way, the effects of minimal amounts of clothing on the water loss by evaporation is being determined.

Dr. Streicher, aided by Miss Verna Pittard, is conducting a study on the clinical and bacteriologic

evaluation of insoluble ketones in chronic ulcerative colitis. They are also working on studies on diarrheas of pancreatic origin, including the evaluation of a new lipase.

Dr. Streicher also is cooperating with Dr. A. C. Ivy and Dr. Morton I. Grossman on the therapeutic analysis of enterogastrone in chronic ulcerative colitis, and the clinical evaluation of dibutoline in diseases of the gastro-intestinal tract.

Dr. Louis R. Limarzi and Dr. Jerry Paul are concerned with a study of blood and bone marrow in Hodgkins' disease which involves approximately 65 cases. Dr. Limarzi and Dr. Callen are investigating blood and bone marrow findings of anemia in kidney disease.

Dr. Carroll L. Birch is concerned with a study of coagulation of the blood, particularly hemophilia in the female. In another study, she and Dr. R. M. Jones are investigating the origin and significance of eosinophit.

Dr. Birch is working with Miss Betty Howard on two other problems. They involve a search in stool and blood for parasites in 24 of Dr. Ivy's rats, and the examination of stools from 20 veterans who served a year or more in the South Pacific.

Hematology Research Foundation Offers Two Fellowships for 1948-1949 Year.—The Hematology Research Foundation has issued an invitation for applications for the Ruth Reader Fellowship and the Robert L. Goldblatt Fellowship for research in blood diseases in the academic year 1948-1949.

The stipend for each fellowship is $1,500 per year with the option of renewal. The offer is made to any race, creed, or color, in the United States.

Applications closed April 16. The awards were to be announced by the Medical Advisory Council in May, 1948. Applicants were chosen on the basis of merit. The Medical Advisory Council, in charge of the project, includes Drs. A. C. Ivy, Louis R. Limarzi, and Otto Saphir.

Medical Research Seminars.—Michael Reese Hospital conducted a seminar on rheumatic fever and Sydenham's chorea, April 28. Dr. B. M. Kagan, a member of the hospital staff, conducted the program. These seminars are sponsored by the Research Institute of Michael Reese Hospital and are held, generally, on the last Wednesday of the month at 8 p.m.

Branch Meetings.—Dr. Danley P. Slaughter, assistant professor of surgery, University of Illinois College of Medicine, addressed the Northwest Branch of the Chicago Medical Society, April 16, on "Radical Surgery in Advanced Carcinoma."

Speakers before the meeting of the North Shore Branch of the Chicago Medical Society, May 4, included Dr. Arthur C. Curtis, head of department of dermatology, University of Michigan Medical School, on "Modern Treatment of Syphilis", and Dr. L. J. Wallner, assistant professor of otolaryngology, University of Illinois College of Medicine, on "Otological Effects of Streptomycin Therapy." The discussants were Dr. Erwin E. Peters, medical director, Chicago Intensive Treatment Center and Dr. P. W. Theobald, assistant in otolaryngology, University of Illinois College of Medicine.

Tuberculosis Agencies Merge.—Resources of the Municipal Tuberculosis Sanitarium and the Tuberculosis Institute of Chicago and Cook County were combined under a recent merger, newspapers report. The announcement was made jointly by Dr. Ernest E. Irons, president of the Municipal Tuberculosis Sanitarium board, and Herbert D. DeYoung, president of the Tuberculosis Institute. Under the new arrangement, the Institute will schedule assignments for all X-ray units operated by both agencies and the sanitarium will develop and study the films. Representatives of both groups will meet monthly for discussion so that uniformity of thought and purpose will govern the whole program.

Meeting of Urologists.—Dr. Irving J. Shapiro gave the presidential address before the Chicago Urological Society, April 22, at the Palmer House, Chicago, on "Psychogenic Factors in Urological Conditions." Other speakers included Dr. Julius M. Glasser, on "Marked Hypertension in a Child Relieved by Nephrectomy" and Dr. John A. Loef, on "Renal Decapsulation in Anuria Due to Sulfathiazole." The discussants were Dr. Benjamin M. Gasul, Dr. Knowlton E. Barber and William N. Wishard, Jr., of Indianapolis, Ind.

Grants for Cancer Research.—The University of Illinois has been awarded four grants totaling $51,130 for cancer research, teaching, and control by the National Cancer Institute of the U. S. Public Health Service.

Three of the grants have been designated for the college of medicine. They are stipends of $23,250 to be applied to a cancer teaching program, $16,880 for cancer research, and $6,000 for a study in cancer control.

A fourth grant, amounting to $5,000, has been awarded to the college of dentistry for a cancer teaching program.

The grants were announced by Oscar R. Ewing, administrator of the Federal Security Agency, Washington, D.C.

The American Cancer Society has awarded a grant of $18,935 to the department of pathology of the University of Illinois College of Medicine.

The grant will be used for an investigation of nucleic acids and amino acids in relation to cellular growth. Dr. Isidore Gersh, associate professor of pathology, will serve as the principal investigator.

The grant was approved on the recommendation of the Committee on Growth of the National Research Council.

French Physicians Awarded Fellowships.—Two French physicians have been awarded fellowships to take a 12-month postgraduate course in allergy

which will be offered next fall by the University of Illinois' colleges of medicine and pharmacy.

The physicians are Dr. Jean Dausset and Dr. Claude Lapresle, both of Paris. They will receive stipends from a fund established by an anonymous donor.

They were recommended for the fellowships by Dr. Hugues Gounelle, a consultant for American Aid to France, and Dr. Andre Lichtwicz, chairman of a military-medical mission to the U. S. in 1945. At that time, Dr. Lichtwicz designated the University of Illinois as the college to train French physicians in allergy.

Eight American physicians also will be selected for the course starting September 27. The 1948-49 course will be the fourth to be offered by the University of Illinois Allergy Unit.

New Officers Chosen by Urologists.—Dr. James W. Merricks was elected president of the Chicago Urological Society at its recent annual meeting; other officers are Dr. James I. Farrell, vice president, and Dr. J. S. Grove, 185 North Wabash Avenue, secretary-treasurer.

New Pressure Chambers for Human Experimentation.—Two low pressure chambers designed for human experimentation have been secured by the University of Illinois College of Medicine for installation in its new $400,000 Aero Medical and Atmospheric Institute.

The Institute, now under construction, will be used for the study of physical environment in health and disease. In addition, knowledge gained from research is expected to be of great value to military and civilian aviation.

The chambers were shipped to the University by the Air Forces from Middletown, Pa., via railroad. The larger chamber, capable of handling 16 men, is eight feet in diameter, 20 feet long, and weighs 29,000 pounds. A second chamber is designed for six-to-eight men.

The chambers will be used for numerous studies in aviation medicine. One of the studies will attempt to answer the increasingly important question of which patients should not be permitted to fly.

Other research will involve studies on adaptation to high altitude, the effect of small changes of barometric pressure on arthritic and rheumatic patients, the effect of high altitude on the senses of smell and taste in man, and studies on dynamics of hemorrhagic shock at high altitude.

The chambers are capable of lowering atmospheric pressures to give the equivalent of conditions encountered by pilots and passengers of aircraft flying at altitudes ranging from sea level to 40,000 feet.

Construction of the Institute was started last September, and is expected to be completed this fall. It will be located in the center of the campus quadrangle of the University of Illinois' Chicago Professional Colleges. The building will measure 146 feet by 55 feet, and will include a ground floor and a mezzanine at the first floor level.

Upon completion, the building will include a cold room in which temperatures as low as minus 60 degrees fahrenheit can be maintained, large and small cylindrical chambers for work with human beings, and five rooms for research.

Society News.—Dr. Philip Thorek, Chicago, presented the following papers at the Eighth Annual Western Colorado Spring Clinic in Grand Junction, Colo., April 3-4: "Surgery for Advanced Carcinoma" with motion picture demonstration, "Vagotomy" with motion pictures and "Surgical Abdominal Emergencies."—Dr. J. P. Greenhill, Chicago, delivered the Samuel and Minnie Good-Friend Memorial Lecture at the Lebanon Memorial Hospital, New York, on "Recent Advances in Obstetrics and Gynecology".

Personal.—Dr. Max Thorek addressed the Homer G. Phillip Hospital Interne Alumni Association, Washington University School of Medicine, St. Louis, Mo., April 23, on "Cholecystectomy: Its Technical Variations."—Dr. Carroll L. Birch is currently making a motion picture entitled "Animated Hematology Bone Marrow." The silent one-reel picture will show the embryology of bone marrow, normal findings and pathology of bone marrow. The bone marrow will be shown by photomicrographs.

Personal.—Dr. Louis R. Limarzi has been appointed a member of the committee on exhibits of the International Society of Hematology which will hold its first meeting at Buffalo, N. Y., August 23-26. He also has been appointed a member of the steering committee for the clarification of terminology of cells and diseases of the blood and blood forming organs of the American Society of Clinical Pathologists.

KANE COUNTY

Personal.—Dr. Walter A. Schimmel, Dundee, who was recently discharged from the Army Air Force as Lieutenant Colonel after serving forty-four months, has opened his office at 511 Oregon Avenue. Prior to entrance into military service, Dr. Schimmel practiced in Arlington Heights.

MACON COUNTY

Society News.—Dr. Carlo S. Scuderi, professor of orthopedics, University of Illinois College of Medicine, addressed the Macon County Medical Society, April 27 in Decatur on "Common Problems in Treatment of Fractures."

Cancer Clinic Starts Speaker Series.—The Cancer Diagnostic Clinic has heightened the interest in its sessions by adding a clinical pathological conference, the first of which was on March 18. At this first of the meetings to be held monthly at Decatur and Macon County Hospital, local doctors led the discussion of the general problem of diagnosis of malignancy. Dr. Clyde H. Tearnan opened on the subject of surgical diagnosis, Dr. Milton E. Rose with the medical diagnosis, and Dr. W. C. Smullen

with the x-ray diagnosis of carcinoma. Dr. Robert Haan presented a specially chosen case. Dr. Wilbur C. Wood presided. The conference was followed by a consideration of the cases referred to the diagnostic clinic by other doctors.

The new plan, organized by Dr. Arthur L. Ennis for the American Cancer Society, will continue monthly. Every three months a guest speaker will head the clinical pathological conference and discuss the particular phase of the cancer problem in which he specializes., At a well attended meeting at 10:30 a.m., April 15, Dr. Herbert Schmitz, Loyola University School of Medicine, discussed "Carcinoma of the Cervix and Uterus." The meeting was followed by a courtesy luncheon at the hospital.

Portrait Issue of Bulletin.—The Macon County Medical Society devoted its April bulletin to a reproduction of portraits of its membership. Unfortunately, at the time the issue went to press, the photographs of thirteen members were not available. Most of the portraits were made in January 1948 by the Joseph Merante Studio of New York City at the request of the Illinois State Medical Society.

The 1948 list of the Macon County Medical Society includes eighteen names which have been added in the past year. Eight others have been removed. A statistical breakdown of the present 109 members shows that they include twelve physicians who are retired. Six others are in institutional types of medicine. Of the remainder, 82 doctors are actively practicing in Decatur and nine in outlying towns. Not listed are the several physicians from adjacent counties who are on the associate staffs of Decatur Hospitals. Further calculation will show that Macon County has 91 practicing doctors for its estimated 90,000 population, or approximately one physician for each 1000 residents.

MARION COUNTY

Physicians Honored.—The reunion of two local physicians, Drs. H. O. Williams and F. M. Edwards, both of Centralia, with two other classmates, Drs. W. R. Mangus, Bridgeport and J. S. Templeton, Pinckneyville, was a feature of a meeting recently in the home of Dr. and Mrs. Williams. The physicians and their wives were guests at a luncheon marking the fiftieth year of their graduation from medical school.

Dr. Edwards and Dr. Williams are the first physicians in Centralia to become members of the Fifty Year Club of the Illinois State Medical Society. A special celebration was held at the Langenfield Hotel and the presentation was made by Dr. Andy Hall, Mt. Vernon, president of the Fifty Year Club. Speakers at the affair were Drs. Harry E. Ryan, Centralia, toastmaster, and Dr. Irving H. Neece, Decatur, then President of the Illinois State Medical Society.

PEORIA COUNTY

Fifty Years in Medicine.—Three physicians of Peoria were awarded the Fifty Year medals and certificates indicating their memberships in the Fifty Year Club of the Illinois State Medical Society at a meeting of the Peoria County Medical Society, April 13. The physicians are Dr. Roland L. Green, past president of the Illinois State Medical Society, Dr. A. S. Plummer and Dr. W. T. Marrs. The presentations were made by Dr. Irving H. Neece, Decatur, then president of the Illinois State Medical Society, and Dr. Harold M. Camp, Monmouth, Secretary. Additional honor was the presentation to each of the physicians of a key of the Peoria County Medical Society by Dr. Fred Maurer, president. Dr. Orville Barbour was toastmaster at the dinner. The three physicians graduated at the College of Physicians and Surgeons, St. Louis. Drs. Green and Plummer were graduated in 1898 and Dr. Marrs in 1894. The latter has practiced in Peoria for forty-eight years.

PERRY COUNTY

Dr. Templeton Honored.—Dr. J. S. Templeton, who graduated at the College of Physicians and Surgeons in St. Louis fifty years ago, was presented with the Fifty Year Medal at a special meeting of the Six-County Medical Society recently. Dr. Templeton has been practicing in Perry County for all of his fifty years. The presentation of the Fifty Year Medal was made by Dr. Andy Hall, Mt. Vernon. Dr. Templeton is a past president of the Illinois State Medical Society.

RANDOLPH COUNTY

Joint Meeting.—A joint meeting of the Randolph County Farm Bureau and the Randolph County Medical Society was held April 28 at the Dreamland Cafe, Sparta. The following speakers appeared on the program: Dr. W. W. Fullerton, Secretary, Randolph County Medical Society, on "Organization and Distribution of Medicine"; Dr. Carl F. Mees, Randolph County Farm Advisor, on "Agriculture and Its Relation to Public Health"; and Dr. G. Cleveland Otrich, Belleville, on "Soil, Food and Nutrition". The feature of the meeting was the presentation of the Fifty Year Pin and Certificate to Dr. B. J. Stevenson and Dr. H. Le Saulnier.

ROCK ISLAND COUNTY

Life Memberships.—Life memberships in the Rock Island County Medical Society were granted to Drs. E. A. Soule, East Moline, and F. H. First, Rock Island, at a meeting of the society, April 13. The society also recommended that the two physicians be granted emeritus membership in the Illinois State Medical Society. Dr. R. T. Tidrick, Iowa City, addressed the meeting on "Newer Treatment of Advanced Burns."

SCHUYLER COUNTY

Personal.—Dr. Harold M. Camp, Monmouth, Secretary, Illinois State Medical Society, addressed the Rushville Rotary Club, April 22 at a dinner meeting, on "Medicine: Yesterday, Today and Tomorrow?"

WHITESIDE-LEE COUNTY

Joint Meeting.—The Whiteside-Lee County Medical Societies were addressed at a joint meeting, April 12, at the Sterling Public Hospital, by Dr. Rexford Finegan, assistant medical director of the Metropolitan Life Insurance Company of New York. on "Life Insurance Examinations and Recent Life Insurance Statistics."

VERMILION COUNTY

Physicians Honored.—Drs. O. W. Michael, Muncie, and J. H. Williamson, Dixon, were inducted into the Fifty Year Club of the Illinois Medical Society at a meeting in Danville, April 7. The two physicians received gold pins and certificates. The presentation to Dr. Michael was made by his son, Dr. Oscar J. Michael. Dr. Williamson received his pin and certificate from his son, Dr. Holland Williamson.

GENERAL

Annual Alumni Election.—Dr. Michael H. Streicher was installed as president of the Medical Alumni Association of the University of Illinois at the organization's annual luncheon recently at the Palmer House. Dr. Streicher is an associate professor of medicine at the University of Illinois. Dr. Frank Lee Stone was selected as president-elect. Other officers elected to serve one-year terms were Dr. Edward A. Christofferson, first vice-president; Dr. Walter J. R. Camp, second vice-president; and Dr. Walter Simmonds, necrologist. Dr. George D. Stoddard, University of Illinois president, and Dr. A. C. Ivy, vice-president in charge of the Chicago Professional Colleges, were guests at the luncheon.

Fraternity Luncheon.—The Phi Rho Sigma Fraternity reserved the Chicago Yacht Club, foot of Monroe Street, for their A. M. A. luncheon on Wednesday, June 23. Reservations have been made for 125. The local committee in charge of this meeting consists of Dr. Robert M. Graham, Dr. L. W. Peterson and Dr. Howard B. Carroll.

Personal.—Ben Kiningham has been appointed executive secretary of the Illinois Tuberculosis Association.

Navy Research Unit Moves.—The navy is moving its medical research unit from Dublin, Ga., to Great Lakes Naval Training Center, according to the Chicago Tribune, reported April 14.

Health Association Chooses Officers.—At a meeting of the American Student Health Association held recently in Chicago, Dr. Herbert A. Ratner of Loyola University was elected president of the Illinois regional division of the national association.

In addition to his position as director of Loyola's student health service, Dr. Ratner serves as an associate professor of medicine at Loyola University School of Medicine.

Others elected to office were: Dr. E. B. Erskine, University of Illinois (Navy Pier), vice-president; Dr. William G. Beadenkopf, University of Chicago, secretary-treasurer; and Dr. Arnold Wagner, Northwestern University, and Dr. Thomas D. Fitzgerald, Illinois State Normal, members-at-large for the executive committee.

Illinois Bacteriologists Honor Dr. Huddleson.—The Society of Illinois Bacteriologists conferred its first annual award for outstanding contributions to the science of bacteriology on Doctor I. Forest Huddleson, Professor of Bacteriology, Michigan State College, East Lansing, Michigan. The award was presented to Doctor Huddleson at a meeting of the Society on Friday, April 30, at the Museum of Science and Industry in Jackson Park.

Doctor Huddleson is well known throughout the world for his contributions in bacteriology. He was born in Kentucky. He received his bachelor's degree in chemistry and bacteriology at Oklahoma A. and M. College. He then studied at Michigan State College where he received the degrees of M.S., D.V.M., and Ph.D. He entered the army during World War I as a private and rose to the rank of Captain at the time of his discharge. In 1940 he received the American Veterinary Medical Association's International Veterinary Award. In 1944 he was honored with the Borden Award of the American Veterinary Medical Association. His studies have centered around brucella infections in man and animals, and he is recognized as a world authority in this field. He has published two books and more than 150 scientific papers on brucella infections. The Society of Illinois Bacteriologists is composed of 448 members in the State of Illinois, and includes nearly every professional bacteriologist in the state. It was organized in 1935 as a branch of the national organization known as the Society of American Bacteriologists.

The purpose of the Society's award is to give public recognition to some person residing in the middle west who has made an outstanding contribution to the Science of Bacteriology. The Award was inaugurated in 1948 and will continue to be given once every year in the future.

HEALTH DEPARTMENT ACTIVITIES

New Low Maternal Death Rate. — The loss of maternal life from the complications of childbirth in Illinois in 1947 was at a rate of 1 for every 1,000 babies born alive, the lowest maternal death rate in the history of the state, according to a vital statistics report released today by Dr. Roland R. Cross, state director of public health. Although the total number of births in Illinois in 1947 increased by more than 12 per cent over the previous year's figures, 192,247 as against 170,921, the number of maternal deaths stood at 198 as compared with 229 in 1946.

The report also reveals a saving in infant lives during the year. Deaths among babies under one year of age declined from a rate of 30.3 per 1,000 births in 1946 to a rate of 28.8 for last year. All causes were responsible for 92,371 deaths in Illinois in 1947, an increase of 4 per cent over the 1946 figures. Heart disease and cancer were mainly responsible for the higher mortality, each causing a sharply greater number of deaths. Especially significant in the report is the 7 per cent reduction in mortality from tuberculosis, the death rate for the year reaching a new all-time low of 33.6 per 100,000 of the population. The number of deaths from this disease declined from 2,954 in 1946 to 2,760 last year. While the number of fatal accidents of all kinds was up slightly, 5,275 in 1947 as against 5,259 in the previous year, the 1947 death rate was actually lower, 64.2 per 100,000 population as compared with 65.5 in 1946.

Water Treatment Plants. — A ten weeks course in the operation of water treatment plants, sponsored by the state department of public health, opened April 22 at the Southern Illinois University in Carbondale. Covering such subjects as epidemics, laboratory tests, care of mechanical equipment and other phases of waterworks operation, sessions will be held once a week for a period of two hours. There is no tuition fee for the course, which is open to any superintendent or operator of a water treatment plant in southern Illinois. This short course is a part of the department's program to promote efficient and safe operation of municipal water plants.

Diagnostic Examinations. — During the first three months of this year 3,573 residents of Illinois received free examinations at 19 state-aided cancer diagnostic clinics, Dr. Roland R. Cross, state director of public health, reported recently. Of this group, 1,007 persons were entering the clinics for the first time and 2,566 patients were returning for follow-up examinations.

These clinics, which have been established by the state department of public health, offer free consultation service to any Illinois physician in the diagnosis and treatment of cancer patients. Any person who has symptoms suggestive of cancer may arrange through his family physician for admission to any one of these centers.

In emphasizing the magnitude of the cancer problem in Illinois Dr. Cross pointed out that mortality from cancer was at a rate of about 37 per day in the state last year. Cancer deaths for the year totaled 13,402 as compared with 12,847 in 1946, an increase of about 4 per cent.

"Although mortality from cancer continues to increase year by year, records from cancer treatment centers show that the disease can be cured in many cases if it is discovered early enough and treated promptly with surgery, radium or x-ray," Dr. Cross concluded.

"For The Common Good"

Mrs. Walter Stevenson, Quincy, was recently named co-chairman of the Illinois Statewide Public Health Committee of which Mr. Benjamin Wham, Chicago, is chairman. She was named to the position by Governor Dwight H. Green.

Villa Stiles of the Chicago Industrial Health Association was in the Chicago office recently conferring on proposed health publication of the association.

Dr. and Mrs. D. C. Good, Danville, visited the Chicago office recently to discuss a proposed speaker for the Vermilion County Medical Society's Woman's Auxiliary.

At the Decatur Postgraduate Conference of the Seventh Councilor District, March 25, guests of Dr. Irving H. Neece, then president of the Illinois State Medical Society, were Mrs. Lindy Thompson, R.N. Mrs. Sadie Castle, and Miss Violet Sargent, R.N., all assistants of Dr. Neece.

Lectures Arranged Through the Educational Committee of the Illinois State Medical Society; Charles P. Blair, Monmouth, Chairman:

Howard L. Alt, Chicago, Leukemia Research Foundation at Congress Hotel, May 22, on "Leukemia Research."

W. W. Bauer, Director, Bureau of Health Education, American Medical Association, Chicago, Peoria Kiwanis Club in Peoria, June 16, "Growing Old Gracefully."

Carlos I. Reed, Ph.D., Northwestern University Dental Alumni Association in the Gilmore Auditorium of the Dental School, Chicago, June 15, "Diet and Nutrition."

The Educational Committee also arranged the following Youth Week Lectures for the Chicago Medical Society and the Chicago Board of Education; all physicians are of Chicago:

W. W. Bolton, McKay School, April 23, Health as a Hobby.

Benjamin Kaplan, Haxt School, May 10, Health as a Hobby.

Minnie Perlstein, Tuley High School, May 11, Care of the Skin.

Hyman Gordon, Drummond Elementary School, May 11, Keeping Your Body Fit.

W. K. Gottstein, Sherwood School, May 12, Tempers and Tantrums.

C. Edward Stepan, Funston School, May 12, Tempers and Tantrums.

W. W. Bolton, Mason Elementary School, May 13, Health as a Hobby.

Mary G. Schroeder, Bryant School, May 13, Health and Personality.

Julius Richmond, Froebel School, May 13, Keeping Your Body Fit.

Harry H. Boyle, Hale School, May 13, Tempers and Tantrums.

Edmund G. Hess, Mitchell Elementary School, May 14, Health and Personality.

Morris Braude, Earl School, May 14, Health and Personality.

Robert E. Lee, Greene Elementary School, May 14, Health as a Hobby.

Robert R. Mustell, Brainard School, May 14, Health as a Hobby.

Frank G. Murphy, Florence Nightingale School, May 14, Health as a Hobby.

Lectures Arranged Through the Scientific Service Committee of the Illinois State Medical Society; Robert S. Berghoff, Chicago, Chairman:

James H. Hutton, Chicago, Morgan County Medical Society in Jacksonville, May 13, "Endocrine Aspect of Hypertension."

F. Garm Norbury, Jacksonville, Fulton County Medical Society in Canton, May 20, "Psychosomatic Medicine."

Edward W. Cannady, East St. Louis, Marion, Clinton, and Washington Counties Medical Society in Centralia, June 17, "Treatment of Congestive Heart Failure."

William M. McMillan, Chicago, Will-Grundy County Medical Society in Joliet, June 24, "Surgical Treatment of Hypertension."

Norbert C. Barwasser, Moline, McDonough County Medical Society in Macomb, September 24, "Diagnosis and Treatment of Common Skin Diseases."

Postgraduate Conference Arranged Through the Postgraduate Education Committee of the Illinois State Medical Society; Robert S. Berghoff, Chicago; Chairman: For the Sixth Councilor District (Adams, Brown, Cass, Pike, Scott, Morgan, Calhoun, Greene, Jersey, Macoupin and Madison Counties), with the Madison County Medical Society acting as host at a luncheon at the Mineral Springs Hotel, Alton, June 3, with Dr. F. Garm Norbury, Jacksonville, presiding as Councilor. Participants were:

Thomas D. Masters, Springfield, Management of Diabetes During Pregnancy and Surgical Complications.

Wayne W. Flora, Chicago, Diagnosis and Treatment of Anal Fissue.

Joseph N. Rappaport, Evanston, Behavior Problems of Early Childhood.

Philip Thorek, Chicago, Pre and Postoperative Therapy.

Claude N. Lambert, Chicago, Principles of Fracture Treatment.

Walter F. Dillon, Chicago, Cancer of the Cervix and Endometrium.

Frederick H. Falls, Chicago, Antepartum Hemorrhage.

Percy E. Hopkins, Chicago, Illinois Prepayment Medical Care Plan.

The evening dinner speaker will be Dr. Harold M. Camp, Monmouth, Secretary, Illinois State Medical Society, "Necessity for Cooperative Program in Providing Medical Care."

DEATHS

Edward Cunat, Chicago, who graduated at Rush Medical College in 1900, plunged to his death from the Presbyterian Hospital where he had been a patient for five days, April 7, aged 72.

John Nelson English, Gillespie, who graduated at Missouri Medical College, St. Louis, in 1893, died in St. Francis Hospital, Litchfield, January 4; age 81, of pneumonia.

David J. Evans, retired, Aurora, who graduated at Rush Medical College in 1898, died April 7, aged 76, of coronary thrombosis. He had been on the staffs of the St. Charles, Copley and St. Joseph Hospitals of Aurora and was an emeritus member of the Illinois State Medical Society.

Edward Carlin Ferguson, Edwardsville, who graduated at Jefferson Medical College of Philadelphia in 1896, died of a heart ailment, March 26, aged 75. He was a member of the "Fifty Year Club" of the Illinois State Medical Society.

William Rudisel Fringer, retired, Rockford, who graduated at Northwestern University Medical School in 1888, died March 7, aged 84. He was a past president of the Winnebago County Medical Society, a member of the "Fifty Year Club" of the Illinois State Medical Society, and the Chicago Ophthalmological Society.

Lewis L. Jackson, Vienna, who graduated at Loyola University School of Medicine in 1916, died in the Metropolis Memorial Hospital in Metropolis, January 12, aged 64, of pulmonary embolism following an automobile accident on Christmas Eve.

Everard T. Lark, Columbia, who graduated at St. Louis University School of Medicine in 1902, died suddenly of a heart attack, April 20, aged 68. He had practiced medicine for 40 years, the last 27 of which were in Columbia.

Thomas P. O'Connor, Chicago, who graduated at John A. Creighton Medical College, Omaha, Nebraska, in 1914, died March 25, aged 56. He was an associate in otolaryngology at Northwestern University Medical School and attending otolaryngologist at Wesley Memorial Hospital.

Ralph E. Potter, West Point, formerly of Quincy, who graduated at Bennett College of Eclectic Medicine and Surgery, Chicago, in 1913, died in an automobile accident April 5, aged 65. He had served as head physician at the state hospital at Bartonville and

was on the medical staff of the Illinois Soldiers' & Sailors' Home in Quincy before he moved to West Point.

Mary Gertrude Slaughter, Chicago, who graduated at the University of Illinois College of Medicine in 1920, died April 20, aged 60. She was a dispensary physician at the Municipal Tuberculosis Sanitarium since 1926.

James W. Twitchell, retired, Belleville, who graduated at Marion-Sims College of Medicine, St. Louis, in 1898, died March 11, aged 78. He had practiced medicine and surgery in Belleville until he retired 15 years ago.

S. A. Ware, Springfield, who graduated from Meharry Medical College, Nashville, in 1899, died January 8, aged 74.

WARNING ISSUED ON CONTAMINATED DEXTROSE SOLUTION

A warning to all physicians and hospitals to check their stocks of Cutter's dextrose and saline solution bearing code number CM 8164 was issued today in an editorial which will appear in the May 1 issue of The Journal of the American Medical Association.

The editorial states in full:

"On April 19 the Headquarters of the American Medical Association received a wire from Dr. W. F. O'Donnell Jr. of Hazard, Kentucky, reporting serious reactions in two patients immediately following the intravenous use of five percent glucose in normal saline manufactured by Cutter Laboratories, Berkeley, California. The American Medical Association immediately notified the Food and Drug Administration of these facts and a nationwide investigation by Federal and State regulatory officials was launched. Not all of the facts are yet available but the following information justifies a warning to all physicians and hospitals.

"At least two and possibly four deaths have occurred in Miami, Florida; Lexington and Louisville, Kentucky, following administration of Cutter's dextrose and saline bearing code number CM 8146. At least eight other serious reactions have been reported, mostly from southern communities. Several hundred one liter bottles with this code number are unaccounted for and the firm's shipping records are so incomplete as to make it impossible to trace and recover all of the outstanding material quickly. Although the contaminant has not been identified, it appears to be a heavy growth of bacteria or mold. Many of the unopened bottles show a distinct cloudiness.

"Physicians and hospital officials are urged to check their stocks for this code of five percent dextrose in saline, and if any is found to hold it and notify the nearest office of the Food and Drug Administration which is working at top speed to recover all outstanding material. The Food and Drug Administration requests that none of this product be destroyed in order that an accurate check on the extent of recovery of this dextrose solution can be made.

"This unfortunate incident again emphasizes the necessity for prompt notification of the American Medical Association and the Food and Drug Administration of any suspicious or unexpected reaction following the administration of a drug. Quick action by Dr. O'Donnell in notifying the Association of the reactions in his patients has no doubt saved the lives of many other persons. As yet Cutter Laboratories has offered no explanation of why this contamination was not detected before the product was distributed. The medical profession is entitled to know the facts in this case and to be assured that the drugs they purchase are safe."

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5

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1. Brougher, J. C.: West. J. Surg., Obst. and Gyn., *52*:520, 1944.
2. Anderson, H. E.: Local Applications of Vitamins A and D to Nipples of Postpartum Breast, read at meeting of Omaha Mid-West Clin. Soc., 1942.
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4. Kunz, A. C.: Cited by Gunther, M.: Lancet, *2*:590, 1945.

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(Continued on page 42)

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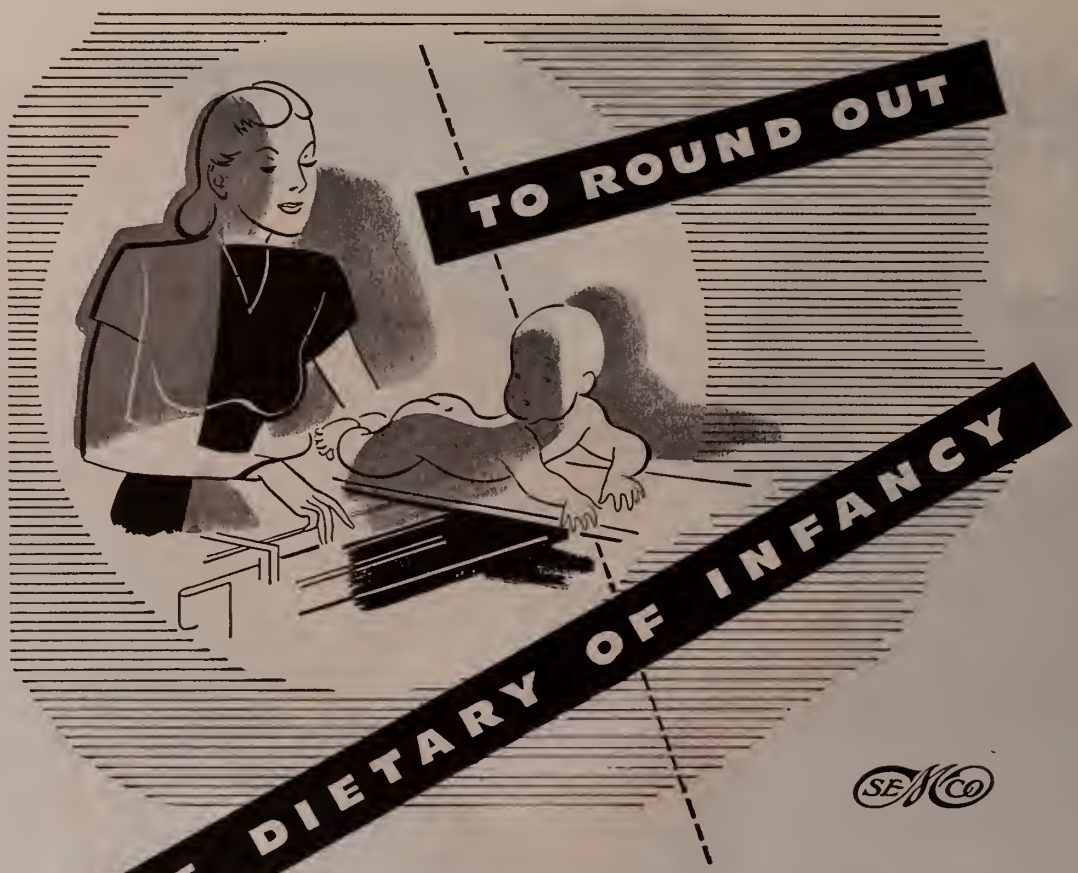
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2. Before you telephone your doctor, make a list of the questions you want to ask him. Have a paper and a pencil handy when you call, so that you may take down his instructions. This way you will save your doctor's time, and remember *accurately* what he tells you.

3. Answer your doctor's questions *fully*. A previous illness may not seem to you to have any bearing on your present condition. But to your doctor it might furnish a valuable clue. Tell him complete facts. Let *him* decide what is important.

4. Follow your doctor's instructions *exactly*. If he prescribes medicine, take it *according to directions*. Remember, a larger dose than that prescribed won't cure you faster. And it might be harmful.

5. Never use medicine prescribed for somebody else, or for a previous illness of your own. However similar your symptoms may appear to you, the nature of your illness may be quite different. Only your doctor can accurately diagnose your trouble and prescribe proper treatment.

6. If your doctor advises an operation, don't put it off. With modern surgery, modern hospital care, you seldom have reason to fear an operation.

7. The new medical treatments you read about in the popular press aren't likely to be news to your doctor. If your doctor has not recommended a new treatment to you, it is probably because there are still some questions about its value, some limitations not stressed in popular reports, or some factors in your case which would make the treatment undesirable or ineffective for *you*.

8. Don't ask your doctor to advise you about members of your family whom he himself has not seen. He cannot risk giving an opinion about a patient of whose condition he has no firsthand knowledge.

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Physical Medicine Abstracts

John S. Coulter, M.D.

THE AFTER-TREATMENT OF ANTERIOR POLIOMYELITIS

H. J. Seddon PRACTITIONER 160:176 (March) 1948

Unless there is a myositis in poliomyelitis the only change that takes place in muscle is the atrophy consequent on denervation. It must be emphasized that the process is an atrophy and not a degeneration. The affected muscles do not require the careful protection such as might be needed if they were the seat of some profound pathologic disturbance. If there is no hope of axonal regeneration there is no point in paying special attention to denervated muscles; those in which recovery occurs have retained their neuronal connections and, apart from being out of action temporarily, are, so far as we know, in no way abnormal. Thus, apart from avoiding overstretching, which is harmful even to a normal muscle, no special mechanical treatment is required and it is to be hoped that the rigid immobilization which has been a feature of the treatment of poliomyelitis in many centers will soon become obsolete.

It has been shown that stimulation of denervated muscle with currents of long duration (galvanism) is of considerable value in preventing atrophy and it should be used routinely in the treatment of peripheral nerve injuries. However, since there is no proof that regeneration of axons plays any significant part in the process of recovery from poliomyelitis, there is no clear indication for employing electrical stimulation at any stage.

It must at once be confessed that there has been no recent advance in the treatment of the effects of paralytic poliomyelitis; all the same it is important to know when and for how long, to apply the few methods of relief that we have at our disposal.

Once the extent of the paralysis is known the treatment can be planned with precision.

In the prevention of faulty posture and overstretching of affected muscles, the aim should be, not immobilization, but simply the prevention of postures that might lead to contractive, and of abnormal tension on paralysed muscles.

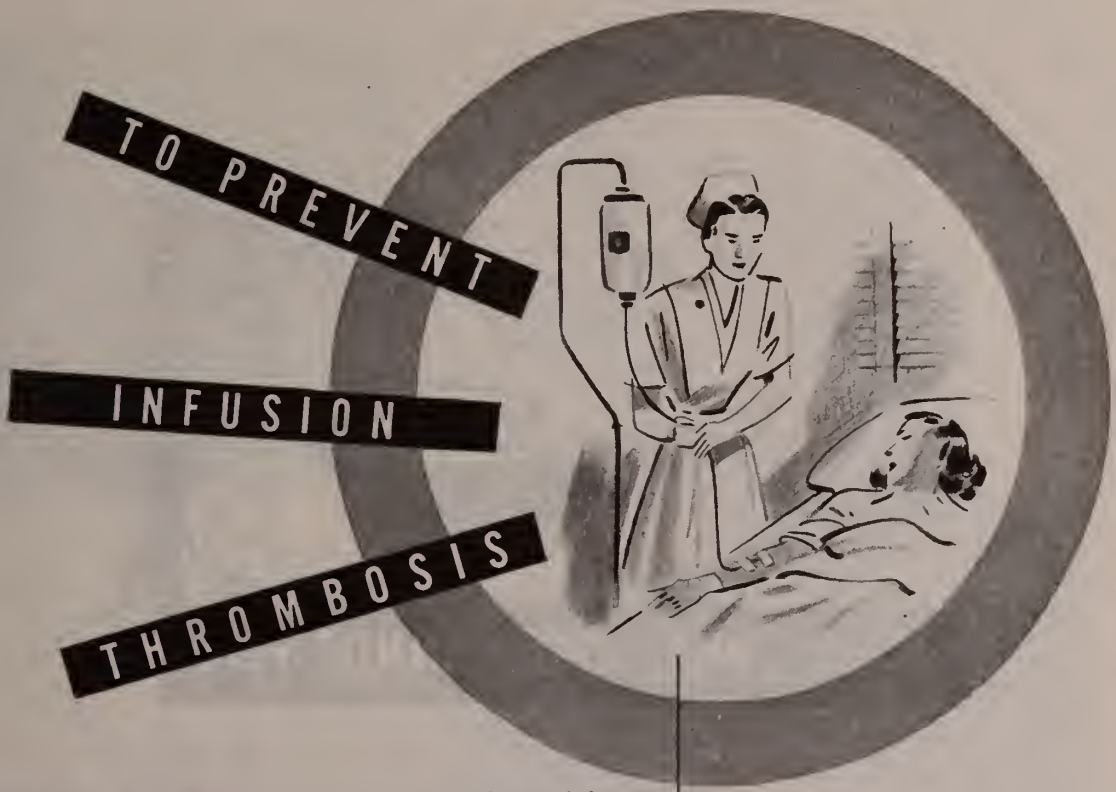
As soon as the patient is afebrile and free from severe pain the paralysed parts should be put through a full range of movement every day, if possible twice a day.

The value of heat for the relief of pain in poliomyelitis has been recognized for over a generation. Massage is of use in getting rid of edema in an extensively paralysed limb, but elevation of the part and frequent passive movement are equally, if not more, important.

Considerable recovery often occurs spontaneously, but there is no doubt that in the more severe cases much good can be achieved by reeducation of muscles. The physical therapist will have three aims, the relative importance of each varying considerably from case to case. Underwater exercises are exceedingly valuable, especially in the treatment of the muscles of the trunk and lower limb.

A serious difficulty is to know when to begin and when to stop a course of treatment which is always time-consuming, tedious and expensive. We do not yet know how long it is before the pathologic process in the cerebrospinal axis sub-

(*Continued on page 52*)



Intravenous infusion is "very often complicated by thrombosis"* of the injected vein. This damaging effect commonly follows injections of solutions containing amino acids, glucose, penicillin, sulfonamides and many other therapeutic agents. Obliteration of the vein may be "to a large extent eliminated by adding heparin to the infusion fluid."* It has been recommended that heparin be added to all infusion liquids in doses of 1 mg per 100 cc of solution.** Larger doses of heparin are required with the more irritating solutions—dosage varying with the type of solution and its concentration. Liquaemin 'Roche-Organon' is the preferred heparin of many physicians because of its assured potency and the extraordinary care taken during manufacture to safeguard against the introduction of pyrogens. Liquaemin provides 100 mg of sodium heparin in each 10-cc vial of sterile isotonic solution.

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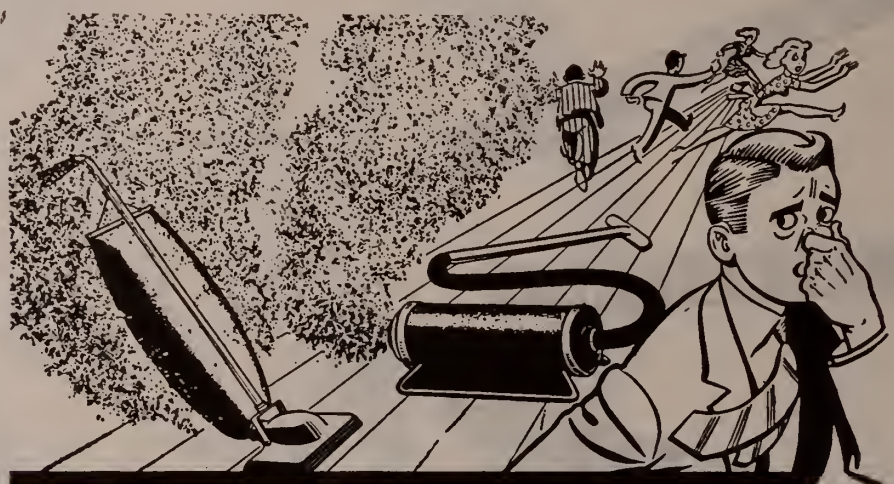
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- **No decrease of blood prothrombin**

*J. E. Jorpes, Heparin in the Treatment of Thrombosis, Oxford University Press, London, 1946. **P .G. C. Martin, *Brit. M. J.* 2:308, 1944.

T.M. —Liquaemin—Reg. U. S. Pat. Off.



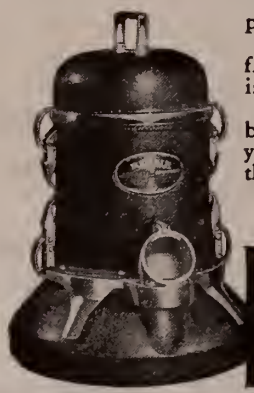
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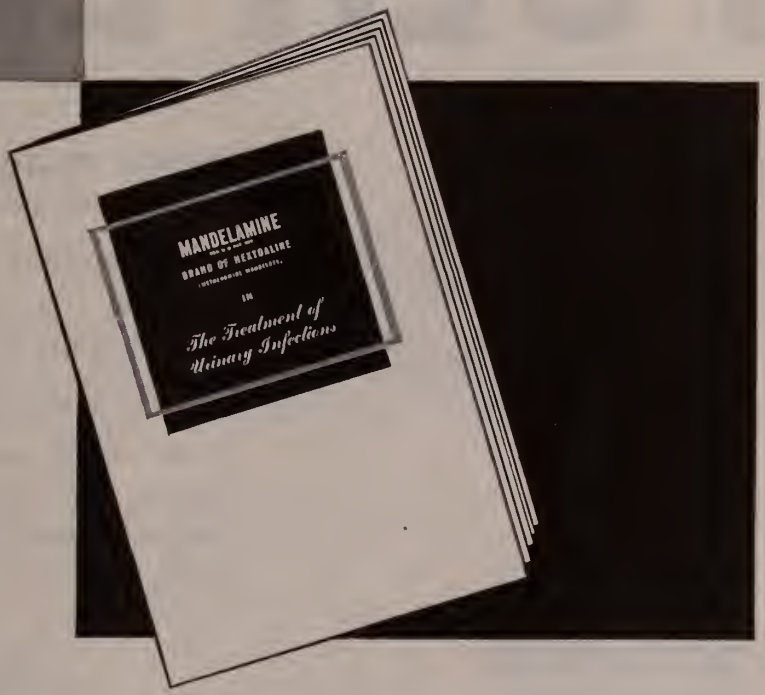
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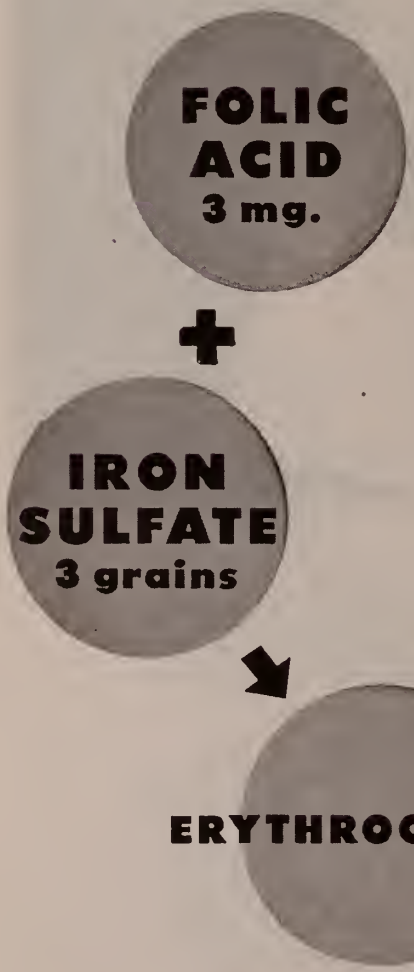
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PHYSICAL MEDICINE (Continued)

sides, but the excess of protein in the cerebrospinal fluid that we have sometimes found as late as six or eight weeks after the onset of the disease suggests that it is necessary to "make haste slowly" in starting exercises that will call for activity in the anterior horn cells. The best indicator is the appearance of signs of spontaneous recovery; this must show that the inflammatory changes are subsiding, and one need then have no hesitation in starting gentle exercises. The duration of treatment must depend entirely on the progress revealed by serial muscle charts. Any muscle or segment of the body that remains completely paralysed after four months must be written off as a loss. Occasionally, feeble power returns in such muscles towards the end of the first year or even a little later, but is hardly such as to warrant the retention of the patient in the hospital and the intensive efforts of a physical therapist. Established reaction of degeneration is a most unfavorable sign, and such observations as we have been able to make during the recent epidemic suggest that electrical examination is a reliable guide to prognosis.

PLANTER WARTS. A PLEA FOR RATIONAL TREATMENT

C. R. McLaughlin, M.B., F.R.C.S.E. E.M.S. Surgeon, Plastic Surgery and Jaw Injuries Centre, East Grinstead
In THE LANCET No. V of Vol. 1, 1948
No. 6492 Vol. CCLIV:168
(January 31) 1948

The dangers of treating plantar warts with x rays and radium are discussed.

A combination of curettage and diathermy is recommended as a safe and efficient alternative.

FRACTURE DISABILITIES

Merritt L. Jones, M.D. In WISCONSIN M. J. 47:207 (Feb.) 1948.

In caring for a so-called Pott's fracture, three common errors in treatment should be recognized and avoided, namely, (1) failure to close the ankle mortise, (2) lack of drosiflexion due to shortening of the heel cord, and (3) distortion due to too early weight-bearing. The use of a walking iron during immobilization is highly recommended.

One of the most disabling fractures in the foot is that of the os calsis. Many methods of re-

(*Continued on page* 56)



not later than 14 days

Investigators* now stress starting *early* with antirachitic measures. An unsurpassed source of natural vitamins A and D, White's Cod Liver Oil concentrate is wholly derived from cod liver oil itself. Palatable, potent, economical: average prophylactic drop dosage for infants costs but a penny a day. Liquid, Tablet and Capsule forms.

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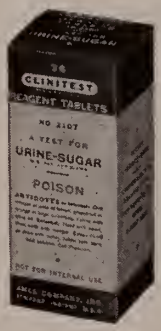
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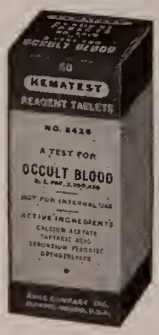
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PHYSICAL MEDICINE (Continued)

duction have been advocated. Whatever method is used, restoration of the salient angles is mandatory.

The author stresses the importance of physical therapy, not only as a necessary adjuvant to the follow-up treatment of fractures, but one which should be instituted and supervised throughout the convalescence of the patient. The ability of any physician undertaking the treatment of fractures and the success of the various types of treatment are best judged by end results. Function is paramount. Function plus accurate reduction and union is the result one tries to obtain.

EARLY AMBULATION FOLLOWING MAJOR SURGERY

Robert H. Bell, A.B., M.D., F.A.C.S. Palestine, Texas

TEXAS STATE JOURNAL OF MEDICINE
Vol. XLIII:11:686 (March) 1948

1. Early rising and early ambulation promote more rapid convalescence through faster healing of wounds due to increased circulation and muscle activity.

2. Fewer postoperative accidents such as thrombophlebitis, pulmonary emboli, illeus, and so forth, are observed.

3. The patients look better and have a better mental outlook.

4. Some contraindications to early rising are shock, active bleeding.

5. A detailed plan for use in early-ambulation is presented.

ELECTROMYOGRAPHY IN KINESIOLOGIC EVALUATIONS

William Bierman, M.D., and Leonard J. Yamshon, M.D., Columbia University, New York

In ARCHIVES OF PHYSICAL MEDICINE
XXIX:4:206, April 1948

Electromyography by means of surface electrodes and an ink-writing oscillograph is a good technic for the detection of the contractions of some muscles.

Muscles in action produce potentials, resting ones do not.

The position of the body, the speed with which a motion is performed and the degree of resist-

(*Continued on page* 58)

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from fear of conception when pregnancy is contraindicated





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PHYSICAL MEDICINE (Continued)

ance influence the production of potentials in muscles.

A muscle crossing a joint takes part in the motion of that joint.

One muscle can be responsible for the initiation of a motion and another for its completion.

At the initiation of a movement, potentials can occur in the antagonists.

Evidence of the contraction of the biceps brachii was found when the forearm was flexed in all positions (supination, pronation and midposition).

Supination of the forearm did not produce any potentials in the biceps when the forearm was held extended. Neither was there any evidence of their presence when the forearm was flexed with gravity eliminated, until the very end of the motion.

Motions of the arm at the shoulder joint are accompanied with evidence of electric potentials in the biceps.

Health, like education, is not only an individual asset; it is a national asset as well. Raymond B. Fosdick, Am. J. Pub. Health, Jan., 1948.

Doctor: Do you smoke?
Patient: No.
Doctor: Do you drink?
Patient: No.
Doctor: Do you stay out late at night?
Patient: No.
Doctor: Well, for Pete's sake, what do you do?
Patient: Tell lies.

"Whatever happened to the little girl in cotton stockings?"
"Nothing!"

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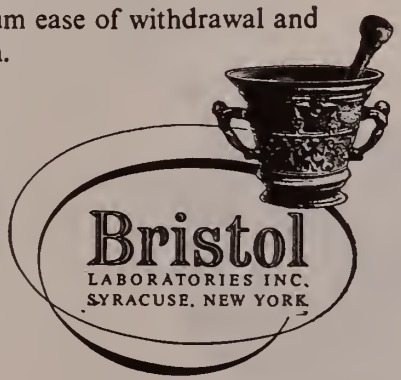
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Book Reviews

HISTOPATHOLOGIC TECHNIC. R. D. Lillie, A.B., M.D. Medical Director, U.S. Public Health Service; Chief, Pathology Laboratory, National Institute of Health. The Blakiston Company, Philadelphia. 1948. 300 pages. $4.75.

This is a new and worthy addition to the abundant literature in the field of histological technic. It gives a full discussion of methods used in histopathology, including microcoscopy, equipment necessary, fixation, sectioning, staining and special staining. The book is written from the personal standpoint with detailed instructions about methods the author personally prefers, although other methods are also fully discussed. Many helpful hints about details of methods are taken from the author's wide experience and are of great practical value. Recent advances in the field, including vascular injections, corrosive technics, autoradiography and the use of buffers are well covered. The book is well indexed.

The refreshing personal approach, the distinctive modifications and simplifications of old methods and the clear presentation of new methods make this book a welcome adjunct to the library of everyone interested in histological technic.

J.C.S.

FUNDAMENTALS OF IMMUNOLOGY. William C. Boyd, Ph.D., Associate Professor of Biochemistry, Boston University, School of Medicine. Second Edition. 1947. 503 pages. Interscience Publishers, Inc., New York. $6.00.

The second edition of this book has been completely revised and rewritten, but the general character has not been greatly altered. Its purpose is to serve as an introduction to immunology for students and research workers. The emphasis is on providing a firm grasp of basic principles, particularly of serology. An exhaustive review of the subject is not attempted, although some methods of laboratory practice and some clinical applications are discussed. One outstanding feature of the book is the abandonment of the historical approach, so that the student is not confused by having to learn early concepts of past workers, only

(*Continued on page* 62)



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Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154; Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60; Proc. Soc. Exp. Biol. and Med., 1934, 32-241; N. Y. State Journ. Med., Vol. 35, 6-1-25, No. 11, 590-592.

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BOOK REVIEWS (Continued)

to find they have been superseded by modern ideas.

The scope of the book includes antigens, antibodies, complement, anaphylaxis and allergy, immunity, and the final chapter contains a rather complete discussion of certain practical aspects of laboratory use of immunological methods. The book is clearly written and well set, and is recommended to the use for which it is intended, as an introduction to immunology for medical students, chemists, biologists and others interested in an understanding of the basic principles of the science.

J.C.S.

TEXTBOOK OF THE EAR, NOSE, AND THROAT: by Francis L. Lederer, B. Sc. M. D. F. A. C. S., Professor and Head of Department of Otolaryngology, University of Illinois College of Medicine, Chicago; Chief of the Otolaryngological Service, Research and Educational Hospital; Director of Education and Chief of the Ear, Nose and Throat Services, Illinois Eye and Ear Infirmary; Captain, Medical Corps, United States Reserve; and Abraham R. Hollender, M. Sc. M.D. F.A.C.S., Professor of Otolaryngology, Emeritus, University of Illinois College of Medicine, Chicago; Attending Otolaryngologist, St. Francis Hospital, Miami Beach, Florida. 182 Illustrations, Second Edition. Philadelphia: F. A. Davis Company, Publishers, 1947. Price $7.00.

The authors have taken cognizance of the numerous developments in medicine since the publication of their first edition in 1942 and have made pertinent changes and additions in their 1947 edition.

Allergy in the field of otorrlinolaryngology is discussed in a general way and mention is made of the newer antagonists of histamine.

Chemotherapeutic and antibiotic agents are given the credit for converting several hitherto surgical problems to medical ones.

Several of the many illustrations are in color which will enhance the value of the book to all who read it. Another worthwhile attraction is the double column arrangement on each page.

This text was primarily devised to supplement lectures and quizzes, both for the instructor and student. In this second edition the fundamentals and basic structure are changed but little. The student, the instructor and the practitioner will find a well-written, easily-read textbook dealing in an excellent manner with diseases of the ear, nose, and throat.

L.P.S.

PRACTICAL X RAY TREATMENT, by Arthur W. Erskine, M.D. Third Edition, 1947. The Bruce Publishing Co., St. Paul and Minneapolis. $4.50.

This excellent volume which, by the author's statement, is not intended for the expert roentgenologist will nevertheless find a place in every radiological library. The material is concisely presented and begins with fundamentals.

The first six chapters deal with physical factors and

(*Continued on page* 66)

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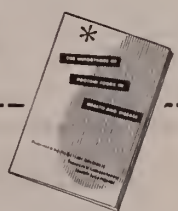
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HANDBOOK OF COMMUNICABLE DISEASES (Second edition): By Franklin H. Top, A.B., M.D., M.P.H., F.A.C.P., Medical Director, Herman Kiefer Hospital; Clinical Professor of Preventive Medicine and Public Health, Wayne University College of Medicine; Extramural Lecturer in Infectious Diseases and Epidemiology, School of Public Health, University of Michigan; Consultant, Preventive Medicine Section, Surgeon General's Office, United States Army; collaborators: Theodore J. Abernethy, M.D., Washington, D.C.; A. R. B. Allen, R.N., Detroit; C. H. Binford, M.D., Baltimore; Patience L. Clarke, R.N., Honolulu, Hawaii; Lowell T. Coggeshall, M.D., Chicago; G. D. Cummings, Ph.D., M.D., Lansing, Michigan; Bruce H. Douglas, M.D., F.A.C.P., Detroit; Thomas Francis, Jr., M.D., Sc.D., Ann Arbor, Michigan; Parker Heath, M.D., Boston; Joseph G. Molner, M.D., M.P.H., Detroit; Gordon B. Myers, M.D., Detroit; Laura E. Peck, B.S., R.N., Detroit; David D. Rutstein, M.D., Boston; Jonas E. Salk, M.D., Ann Arbor, Michigan; George Sewell, M.D., F.A.C.S., Detroit; Loren W. Shaffer, M.D., Detroit; Charles E. Smith, M.D., D.P.H., Stanford University, California; John C. Snyder, M.D., Boston; Louise M. Suchomel, B.S., R.N., and Warren E. Wheeler, M.D., Columbus, Ohio. With 95 text illustrations and 13 color plates. C. V. Mosby Company, St. Louis, 1947. Price $8.50. Pages 992.

The second edition of this excellent handbook has been materially improved by the addition of fourteen new chapters, by completely rewriting three chapters and by general revision in the light of recent developments. By drawing on the varied experience of the Herman Kiefer Hospital and the Detroit Department of Health, the author and the twenty expert collaborators have succeeded in maintaining the same high standards of scientific and literary detail that characterized the first edition.

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D. F. R.

Books Received

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

AN INTRODUCTION TO PHYSICAL METHODS OF TREATMENT IN PSYCHIATRY: (Second Edition) By William Sargant, M.A., M.B. (Cantab.), M.R.C.P., D.P.M., Physician, Maudsley Hospital; Acting Clinical Director, Sutton Emergency Hospital; Hon. Psychiatrist, West End Hospital for Nervous Diseases, London, England; Visiting Professor of Neuropsychiatry (1947-1948), Duke University Medical School, U. S. A. and Eliot Slater, M.A., M.D. (Cantab.), F.R.C.P., D.P.M., Physician in Psychological Medicine, National Hospital, Queen Square; Physician, Maudsley Hospital, London; With a chapter on treatment of the epilepsies by Dennis Hill, M.B. (Lond.), M.R.C.P., D.P.M., Physician in Psychological Medicine, King's College Hospital; Physician in Charge, Department of Applied Electro-Physiology, Maudsley Hospital; Assistant Physician, Department of Applied Electro-Physiology, National Hospital, Queen Square, London. Publisher: The

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BOOKS RECEIVED (Continued)

Williams and Wilkins Company, Baltimore: $3.50. 215 pages.

NEUROANATOMY: (Second Edition) By Fred A. Mettler, A.M., M.D., Ph.D., Associate Professor of Anatomy, College of Physicians and Surgeons, Columbia University, New York; With 357 illustrations, including 33 in color; Publisher: The C. V. Mosby Company, St. Louis. $10.00. 536 pages.

INTERESTING AND USEFUL MEDICAL STATISTICS: Edited by William H. Kupper, M.D., Publisher: William C. Brown Company, Dubuque, Iowa. $6.50. 528 pages.

HUMAN PHYSIOLOGY: (Third Edition) By F. R. Winton, M.D., D.Sc., Professor of Pharmacology, University College, London, and L. E. Bayliss, Ph.D., Reader in Physiology, University College, London: With 248 illustrations. Publisher: The Blakiston Company, Philadelphia and Toronto. 592 pages.

EPILEPSY: PROCEEDINGS OF THE ASSOCIATION HELD JOINTLY WITH THE INTERNATIONAL LEAGUE AGAINST EPILEPSY DECEMBER 13 AND 14, 1946, NEW YORK: With 167 illustrations, and 56 tables. Publisher: The Williams & Wilkins Company, Baltimore. $12.00. 654 pages.

GARDINER'S HANDBOOK OF SKIN DISEASES: (Fifth Edition) Revised by John Kinnear, O.B.E., T.D., M.D., M.R.C.P. (Ed.), D.L., Lecturer in Diseases of the Skin, St. Andrews University, Physician for Diseases of the Skin, Dundee Royal Infirmary Dermatologist, Pre-School and School Medical Services, Dundee, Hon. Colonel (late A/Brig.), R.A.M.C., T.A.; With 20 coloured plates, nine from dufaycolor photographs; Publisher: The Williams and Wilkins Company, Baltimore; $4.50. 250 pages.

ESSENTIALS OF FEVERS: (Second Edition) By Gerald E. Breen, M.D., B.Ch. (N. U.I. DUB); D.P.H., D.O.M.S. (R.C.P. Lond., R.C.S. Eng.); Tempy. Divisional Medical Officer, Hospitals Division, The London County Council; Late Municipal Medical Representative and Deputy Sector Hospital Officer, E.M.S., Formerly Deputy Medical Superintendent the L.C.C. Infectious Hospitals Service; Examiner in Fevers to the General Nursing Council of England and Wales; Publisher: The Williams and Wilkins Company, Baltimore; $4.50. 351 pages.

TAKING THE CURE: THE PATIENTS APPROACH TO TUBERCULOSIS: By Robert G. Lovell, M.D., University Hospital, University of Michigan, Ann Arbor, Michigan; Illustrated by Donald Gooch. Publisher: The MacMillan Company, New York. $2.00. 93 pages.

SEX HABITS OF AMERICAN MEN: A SYMPOSIUM ON THE KINSEY REPORT: Edited by Albert Deutsch.

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HISTORY OF THE MEDICAL SOCIETY OF THE COUNTY OF WESTCHESTER, 1797-1947; A compilation from the available minutes of the Society and various contemporary sources during the years for which the minutes were lost. Published by the Medical Society of the County of Westchester. 193 pages.

PHYSICAL TREATMENT OF INJURIES OF THE BRAIN AND ALLIED NERVOUS DISORDERS: By K. M. Hern, M.C.S.P., Diploma of Liverpool Physical Training College; in charge of Physiotherapy Dept. Military Hospital (Head Injuries), Oxford. With a foreword by Air Vice-Marshal Sir Charles P. Symonds, K.B.E., C.B., D.M., F.R.C.P. Publisher: The Williams and Wilkins Company, Baltimore. $4.00. 96 pages.

PHYSIOLOGIC THERAPY IN RESPIRATORY DISEASES: (Second Edition) By Alvan L. Barach, M.D., Associate Professor of Clinical Medicine, Columbia College of Physicians and Surgeons; Assistant Attending Physician, Presbyterian Hospital, New York, N. Y., 74 illustrations. Publisher: J. B. Lippincott Company, Philadelphia, London, Montreal. $9.00. 408 pages.

IDENTIFICATION OF TUMORS: ESSENTIAL GROSS AND MICROSCOPIC PATHOLOGIC FEATURES SYSTEMATICALLY ARRANGED FOR EASIER IDENTIFICATION: By N. Chandler Foot, M.D., Professor of Surgical Pathology, Cornell University Medical College; Surgical Pathologist to New York Hospital. 241 illustrations. Publisher: J. B. Lippincott Company, Philadelphia, London, Montreal. $6.00. 307 pages.

PHYSIOLOGY OF EXERCISE: By Laurence E. Morehouse, Ph.D., Associate Professor of Physical Education, The University of Southern California; Formerly Research Fellow, Harvard Fatigue Laboratory and Augustus T. Miller Jr., Ph.D., Associate Professor of Physiology, University of North Carolina Medical School: Illustrated: The C. V. Mosby Company, St. Louis, 1948; 353 pages; Price $4.75.

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Reporting on a lecture by Dr. C. H. Andrewes, F.R.S., of the National Institute for Medical Research, on recent research on the common cold, The Journal's correspondent said that "some recent evidence suggested that more unpleasant germs were spread from the nose than from the mouth and throat, which led to the question whether bacteria and viruses accidentally shaken from handkerchiefs might not be of great importance. Tests showed that many bacteria might be shaken out and remain in the air. Handkerchiefs from the later stages of colds were found to be particularly effective as germ distributors. Work now in progress suggested that impregnation of handkerchiefs with a disinfectant might make them much less dangerous in this respect."

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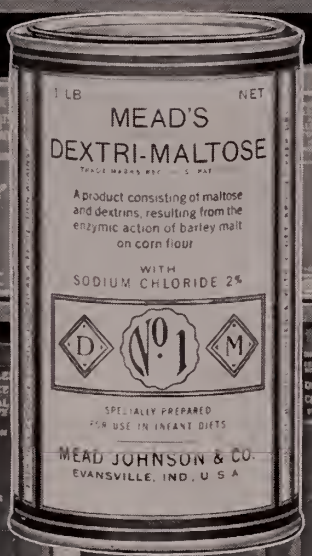


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